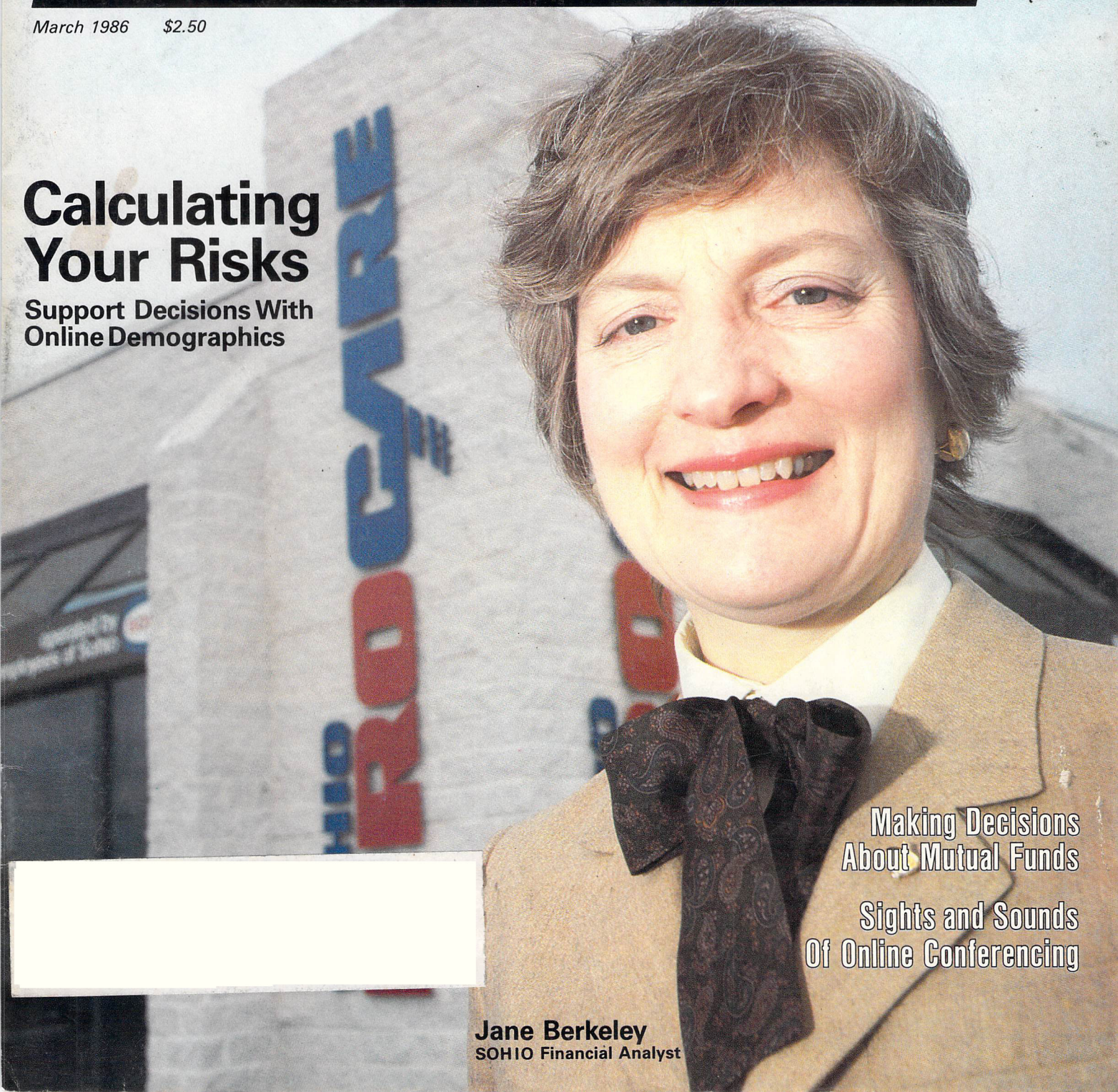
A COMPUSERVE PUBLICATION PRINTED MONTHLY/ONLINE DAILY

ONLINE TODAY

THE COMPUTER COMMUNICATIONS MAGAZINE

March 1986 $2.50



Calculating Your Risks

Support Decisions With Online Demographics

Making Decisions About Mutual Funds

Sights and Sounds Of Online Conferencing

Jane Berkeley
SOHIO Financial Analyst

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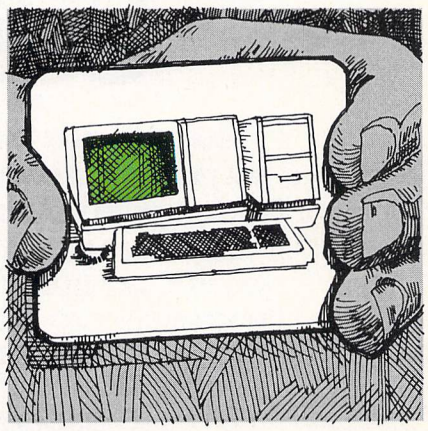

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DEAR READER

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Volume 5 Number 3

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Richard Brownewell, Robert Loomis
Production Assistants
Chris Moore, Susan Toombs

ADVERTISING SALES
National Sales Manager
Stephen J. Peters, 5000 Arlington Centre Blvd., Columbus, OH 43220; 614/457-8600
Northeast Garland & Associates, 10 Industrial Park Rd., Hingham, MA 02043; 617/749-5852; Pete Hardy
Mid Atlantic Nelson & Ross Associates Inc., 55 Scenic Dr., Hastings-on-Hudson, NY 10706; 914/478-0491; Bonnie Nelson, Kaja Ross
Southwest Marketing Communications, Woodland Professional Building, 3545 E. 51st, Suite 11, Tulsa, OK 74135; 918/747-1700; Jack Cozier, Carolyn Harrison
South Marketing Communications, 12339 Lima Dr., Houston, TX 77099; 713/495-3288; Max Nelson
Southeast Fox Associates Inc., Suite 200, Building E, 5775 Peachtree Dunwoody Rd. N.E., Atlanta, GA 30342; 404/252-0968; Rick Gower
Midwest Kingwill & Krukowski Inc., 4433 W. Touhy Ave., Chicago, IL 60646; 312/675-5755; Dave Kingwill, Edward Krukowski, Baird Kingwill
Northwest Fox Associates Inc., 870 Market St., San Francisco, CA 94102; 415/989-5804; Stephen E. Schwanz
West The Faust Co., 24050 Madison St., Suite 100, Torrance, CA 90505; 213/373-9604; Richard Faust, Doug Faust, Robin Faust

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One of the most crucial decisions any retail/service business can make is where to locate outlets. Will the neighborhood support the business? How much can potential customers be expected to spend? What is growth potential in terms of population and disposable income? What other types of businesses are in the area?

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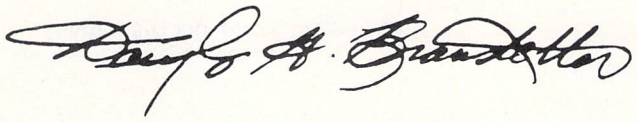
This month, *Online Today* takes a look at a variety of decision support services offered through CompuServe's Business Information and Executive Option services. Whether you're working for a Fortune 500 company or thinking about starting an antique store on the corner, you'll find valuable reading beginning on page 18.

* * *

Some *Online Today* readers may be getting the impression that we've sacrificed the consumer/hobbyist subscribers' interests for the business crowd. While we have increased our emphasis on business and financial coverage, we still maintain a strong commitment to the backbone of the Information Service — the consumer and hobbyist. Every month you'll find a complete wrap-up of CompuServe Information Service news in the Update section of *Online Today*. This month, there is a must-read article for Apple Macintosh users on a new public-domain program called VMCO. The VMCO program allows Mac owners to use CompuServe's conferencing with graphics and sound in an online version of "talking heads." Read about it beginning on page 32.

And for you sports fans: CompuServe now has a new service called Computer Sports World. The CSW database covers the scores, schedules, standings, matchups and statistics for almost every sport. Find out more on page 34 of the Update section.



Douglas G. Branstetter
Editor

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ELECTRONIC EDITION

Online Today Electronic Edition provides daily-updated computer and information industry news, coverage of CompuServe services, commentary, computer product reviews and more. To access the *Electronic Edition*, enter GO OLT at any CompuServe prompt. Once inside OLT, simply enter GO and the page number (e.g., GO 90) to navigate the database. Following is a list of key pages in OLT to help you directly access the information you want without using menus:

DAILY HEADLINES

GO OLT **A GO-page directory** *of the day's top computer industry news and a summary of key OLT page numbers.*

DAILY NEWS

OLT-160 **The Monitor Daily News** *main menu. Lists all Monitor news departments.*

OLT-90 **Today's computer and information industry news.** *Updated at least three times daily, seven days a week, including holidays.*

OLT-20 **The current week's Monitor news**, *displayed on a five-day plus weekend menu.*

OLT-130 **Behind the Screens**SM. *A column of computer and information industry news, rumor and gossip. Updated daily.*

COMPUSERVE UPDATE

OLT-50 **CompuServe Update main menu.** *Lists all CompuServe news departments.*

OLT-70 **What's New on CompuServe.** *A list of the current week's new products and services on CompuServe. For a month backlog of What's New columns, enter GO NEW and choose "Previous Weeks" from the menu.*

OLT-80 **CompuServe Community News.** *CompuServe's daily updated "local news" of people and events on the Information Service.*

OLT-120 **Forum Conference Schedules.** *A complete listing of all forum (special interest group) live conference activity. The list includes dates and times of special event conferences as well as regularly scheduled live conferences.*

COMMENTARY

OLT-130 **Behind the Screens**SM. *A column of computer and information industry news, rumor and gossip. Updated daily.*

OLT-140 **Beginner's Corner column for new CompuServe Users.** *The columns contain instructions and helpful hints on how to get the most for your connect time dollar.*

OLT-3500 **Online With Charles Bowen.** *A column of insights into online computing, written by the co-author of* How to Get the Most Out of CompuServe.

OLT-1000 **Computer Events Calendar.** *A comprehensive weekly listing of major computer and information industry conventions, conferences, seminars and other events. Updated every Sunday.*

OLT-2000 **OLT Special Reports.** *A database of analytical news articles on events of major significance in the computer and information industries.*

OLT-3000 **Computer Legislation Database.** *A complete listing of all federal legislation affecting the computer and information industry and users of its products and services. The database tracks legislation in the House, Senate and President's Desk through passage to Public Law. This database is updated as required by movement or death of a piece of legislation.*

LETTERS TO THE EDITOR

OLT-30 **Letters to the Editor** *main menu. Lists all departments.*

OLT-31 **Send a letter instructions.** *Complete instructions on how to send a letter to the editor via the electronic service.*

OLT-32 **Read letters** *from other OLT readers.*

OLT-33 **Send a letter** *to the editor. You will receive prompts for each step in the process. Important Note: We cannot answer questions regarding the CompuServe Information Service through this service. If you have questions or problems, please use the Feedback service (GO FEEDBACK) or the Online Computer Report Forum (GO RADIO). Also: this service does not have automatic wrap—please enter a carriage return after every 80 characters while composing your letter. Failure to do so will result in truncation of your letter.*

REVIEWS

OLT-200 **Electronic Edition Reviews** *main menu. Lists all departments in the Reviews Section of OLT.*

OLT-220 **Hardware Reviews** *main menu. Six months library of reviews.*

OLT-3920 **Hardware Reviews for March.**

HARDCARD 10MB HARD DISK
Manufacturer
Plus Development Corp.
Computers
IBM PC, PC-XT, Compaq Portable, Compaq Plus and AT&T PC 6300.

ACCENT EXPANDED MEMORY CARD
Manufacturer
Maynard Electronics
Computers
IBM PC, IBM XT, IBM AT, IBM Enhanced AT, IBM PC Portable, IBM 3270 PC and compatibles; Compaq Portable and Deskpro; AT&T 6300; NCR Models 4 and 6; ITT Xtra.

QUADJET INK-JET PRINTER
Manufacturer
Quadram Corporation
Computers
IBM PC, PC-XT, PCjr. or compatibles; Apple II, IIe or compatibles.

RCA VP4012 DATA DISPLAY MONITOR
Manufacturer
RCA Data Communications Products
Computer
Any computer capable of supporting a composite-input (NTSC) monochrome monitor.

OLT-3930 **Software Reviews for March.**

COPY II MAC DISK COPIER
Manufacturer
Central Point Software, Inc.
Computers
Apple Macintosh (including XL), Lisa II with MacWorks.

CONTENTS
ELECTRONIC EDITION

ELECTRA-FIND TEXT RETRIEVAL SOFTWARE
Manufacturer
O'Neill Software
Computers
IBM PC and compatibles.

LYNC 5.0 COMMUNICATIONS SOFTWARE
Manufacturer
Norton-Lambert Corp.
Computers
Most popular Z-80 (CP/M) systems; Apple II computers operating under Apple DOS or CP/M; most MS-DOS or PC-DOS systems.

MEDIA MASTER PLUS DISK CONVERSION AND CP/M EMULATION SOFTWARE
Manufacturer
Intersecting Concepts, Inc.
Computers
IBM PC, PC-XT and compatibles.

RESEARCH 2.0 ECONOMIC DATABASE MANAGER
Manufacturer
Economic Software, Inc.
Computers
IBM PC, PC-XT and compatibles.

SMARTKEY 5.0 KEYBOARD UTILITY SOFTWARE
Manufacturer
Software Research Technologies
Computers
IBM PC, PC-XT, PC-AT, PCjr. and compatibles; special version available for Sanyo 550.

SPREADSHEET LINK FINANCIAL COMMUNICATION SOFTWARE
Manufacturer
Dow Jones & Co., Inc.
Computers
IBM PC and compatibles; Apple II family; Apple Macintosh.

3x5 COMPUTERIZED FILING SYSTEM
Manufacturer
Computer Dynamics Products, Inc.
Computers
IBM PC, PC-XT and compatibles.

TRAMSMIT COMMUNICATIONS SOFTWARE
Manufacturer
Micro Innovative Technology, Inc.
Computers
IBM PC and all true compatibles; Dimension 68000.

XTREE FILE AND DIRECTORY MANAGEMENT SOFTWARE
Manufacturer
Executive Systems, Inc.
Computers
IBM PC, PC-XT, PC-AT and true compatibles.

ZYINDEX 2.02 TEXT MANAGEMENT SYSTEM
Manufacturer
ZyLAB Corp.
Computers
IBM PC, PC-XT, PC-AT and most MS-DOS compatibles.

OLT-240 **Book Reviews** *main menu. Six-month library of reviews.*

OLT-3940 **Book Reviews for March.**

Computers for Executives — *TAB Books Inc.*

Programming the IBM PC User Interface — *BYTE Books/McGraw-Hill*

Computer and Business Equipment Marketing and Forecast Data Book — *Hayden Book Co.*

Running MS-DOS (2nd edition) — *Microsoft Press*

Computers: Bridges to the Future — *Judson Press*

OLT-250 **New Product Announcements** *main menu. Six month library. New Product Announcements.*

OLT-3950 **New Product Announcements for March.**
Model SP320E *enhanced daisywheel printer from Fujitsu America Inc.*
Model ZVM-1330 *high-resolution color monitor from Zenith Data Systems*
Shoebox I, II and III *time management software packages for the IBM PC, PC-XT, PC-AT and compatibles from Techland Systems Inc.*
LoDOWN *tape back-up and hard disk for Apple Macintosh Plus from LoDOWN*
Dot Plot *software package that converts more than 100 dot matrix printers into plotters from Generic Software Inc.*
J.K. Lasser's Your Income Tax *software package for computing 1985 taxes from Simon & Schuster Computer Software*
Model DPX-2000 *intelligent X-Y drafting plotter from Roland DG*
MegaFunction *advanced add-on board for the IBM PC and compatibles from Tecmar Inc.*
PractiBase *powerful relational database for the IBM PC and compatibles from Practicorp International Inc.*
Cleanmail *plug-in circuit card and IBM PC software that eliminates duplications in mailing lists from Proximity Technology Inc.*

ADVERTISERS

EBB-11 **Instructions** *on use of the Electronic Bounce Back reader service system.*

EBB-160 **Online Today Display ads** *main menu for past three months.*

EBB-20 **Ad descriptions** *and EBB response system for March.*

EBB-70 **Shopper's Guide**

MISCELLANEOUS

OLT-352 *How to contact OLT editors.*

OLT-353 *How to report news to Online Today.*

OLT-357 *Online Today Electronic Edition index of key pages.*

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ELECTRONIC BOUNCE BACK

Guidelines to Requesting Information Through EBB

Electronic Bounce Back

Electronic Bounce Back (EBB) is *Online Today*'s electronic version of the traditional reader inquiry card. To request additional information about products or services described in *Online Today*, simply access CompuServe and GO EBB.

```
CompuServe                    Page EBB-1
ONLINE TODAY ADVERTISERS
ELECTRONIC BOUNCE BACK (EBB)
  1. EBB Instructions
  2. Online Today Display Ads
  3. Electronic Edition Reviews
  4. Print Edition Reviews
  5. Shopper's Guide Classifieds
```

Display Ads

GO EBB-160. Inquiries to this section will be followed by a brief description of the *Online Today* ad. To request additional printed information, simply enter your name and address at prompts.* EBB will add your User ID number and electronically forward your request to the appropriate advertiser(s). Inquirer names, addresses and ID numbers will also be forwarded via U.S. Mail at the end of each month.

```
CompuServe                    Page EBB-160
ONLINE TODAY ADVERTISERS/EBB
  1. July 1985 Advertisers
  2. June 1985 Advertisers
  3. May 1985 Advertisers
```

Editorial Articles/Reviews

At the end of each electronic version product review, you'll be asked if you wish to request further information through the Electronic Bounce Back system. A "yes" response will let the system prompt you for your name, address and other information so that your request can be forwarded to the appropriate company. If you respond "no," the system will return you to the previous menu.

To request information about products reviewed in the print edition, go to page EBB-280 and select the appropriate listing, such as July Hardware Reviews. At the next menu, select the product you're interested in. If you answer "yes" at the question prompt, the EBB system will prompt you for the necessary information.

Requests to these sections will be stored and forwarded by traditional mail once each month.

```
CompuServe                    Page EBB-280
REVIEW LISTINGS/PRINT EDITION
  1. July Hardware Listings
  2. July Software Listings
  3. July New Product Listings
```

Shopper's Guide

GO EBB-70. This is *Online Today*'s classified section and is designed to enable readers to easily scan areas of interest.

To request information from Shopper's Guide advertisers send CompuServe Email or use traditional methods of communication.

```
CompuServe                    Page EBB-70
SHOPPER'S GUIDE
  1. About Shopper's Guide
  2. Rates and Information
  3. Software
  4. Services
  5. Accessory
  6. Retailers
```

***Note:**
Additional requests during the same session will not require you to re-enter your name and address.

LETTERS

Commodore Users

I thought the purpose of *Online Today* was to serve the vast, diverse subscribers of the CompuServe Information Service. I thought that no matter what kind of computer you owned, *Online Today* kept you informed about the telecommunications world.

You can't imagine how surprised I was when I read Conrad Kadel's letter (Jan. 1986) informing us that the purpose of *Online Today* was to serve the interests of Commodore users.

Like Kadel, I wish to issue a word of caution. Please don't forget that an equally substantial portion of CompuServe Information Service subscribers are *not* Commodore users. If Kadel desires more information on Commodore products, I suggest he buy one of the many Commodore-specific magazines at his local newsstand rather than complain about offerings in your free magazine.

W. Stewart Ash
Washington, D.C.

LETTERS

Highlights

My old CompuServe index booklet that was once included in *Online Today* has finally worn out. I know you've discontinued publishing this little booklet on a regular basis, but perhaps you could issue it once a quarter or twice a year (It won't last a year.). I know I can print out the Online Index on the CompuServe Information Service, but it is not as functional as your booklet.

Joey Robichaux
Baton Rouge, La.

Editor's note: We now publish the Highlights Subject Index and Product Descriptions every other month in the center of the magazine. The information is printed on full-size pages now rather than in a small booklet.

Editorial Slant

I just received my first issue of *Online Today* and there are some aspects of it that slightly disappoint me. For one thing, the software and hardware reviews seem to be predominantly oriented toward IBM PC and IBM-compatible computers. Since my computer is an Apple II, I feel neglected.

Also, there appears to be an editorial slant toward business and professional users. I guess that's where the money is now, but don't neglect the home and hobbyist users who gave the CompuServe Information Service its start in the first place.

Your magazine looks as if you're trying to make it just as stuffy as other computer magazines, with photos of people in suits and ties, and a cover feature describing a service — online personalized news — that is available only through the Executive Option. You also spend lots of space talking about how to get stock quotes but very little (if any) describing online games and other recreational activities on CompuServe.

Daniel Tobias
Pittsburgh, Pa.

Editor's note: Please see the bottom half of this month's "Dear Reader" column on page 3.

Information About Surcharges

The article about Standard & Poor's Register Online (Jan. 1986, p. 25) fails to make it clear that this service is *not* available to regular CompuServe customers but only to business customers.

I spent 15 minutes talking to a CompuServe Customer Service representative before obtaining this information. You should make these facts clear when you write an article about a particular service on CompuServe.

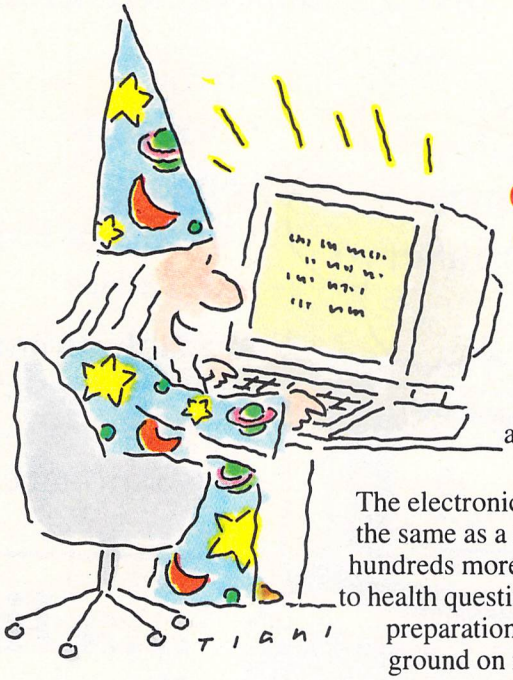
David Texter
Manchester, N.H.

Editor's note: As a matter of policy, Online Today *clearly outlines additional fees incurred in every article about a surcharged or subscription service. However, sometimes it is unclear if the service is available to Executive Option subscribers only. In the future, we will take care to make the distinction.*

Correction

The software review of Telescan Analyzer (Dec. 1985, p. 48) incorrectly stated the Telescan list price as $395 with a $300 subscription fee. In fact, the Telescan program sells for $49.95 with an *optional* $300 software maintenance program. The connect charges for the Telescan database are 50 cents per minute during prime time and 25 cents per minute during non-prime time.

Encyclopedia Electronica!



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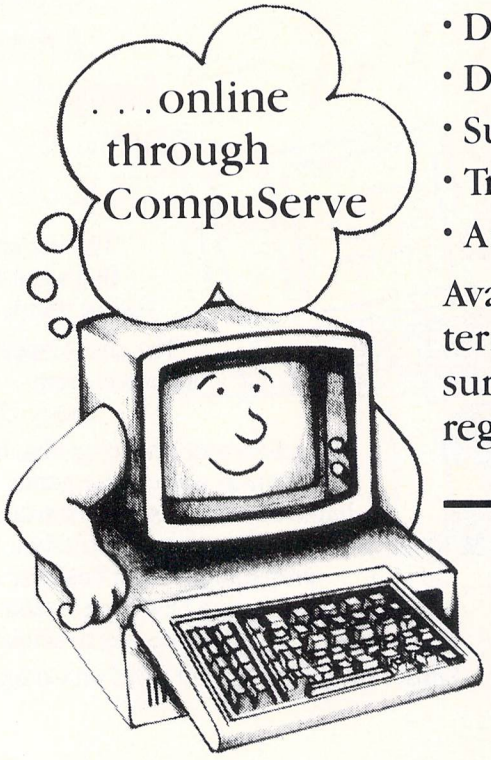

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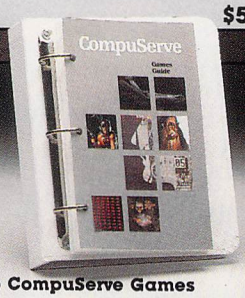

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Binder not included.

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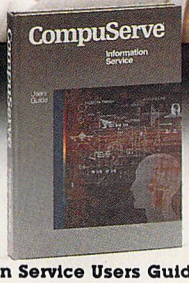

Information Service Users Guide

This is a source not only for "where to find it and what it does," but also a guide to getting the most out of key products and time-saving features. Also includes:

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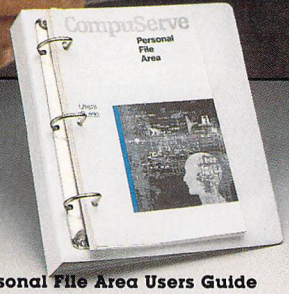

Personal File Area Users Guide

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Binder not included.

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Information Service Subscription Kit

The exciting new CompuServe Information Service Subscription Kit includes a 24 page full-color overview of the service offerings, a new Users Guide, over a dozen command summary Reference Cards, a quick reference word index, an 11" x 14" System Configuration Diagram, plus:

- a sign up ID number and password
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- a list of Information Service rates
- a directory of local telephone access numbers
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Add another ID for a traveling member of the family or firm. A perfect gift for a friend with a PC.

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Let's Talk: An Introduction To CompuServe's Citizen's Band Simulator

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NEW! Introduce a friend to the world of online computing with this guide to the basics of computer telecommunications. Presented as answers to the most commonly asked questions about micro communications.

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NEW! SECOND EDITON. The first edition earned acclaim from CompuServe users. The second edition includes a $6.00 CREDIT for the reader to use to get acquainted with the service!

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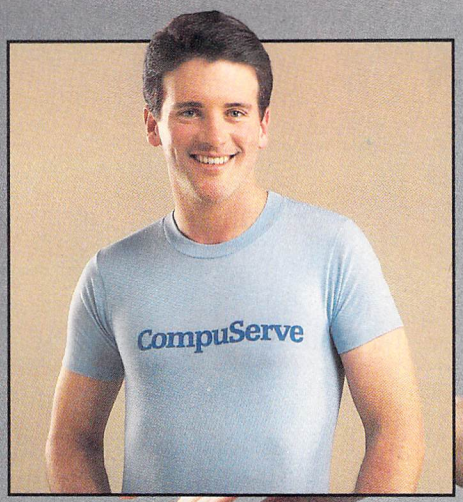

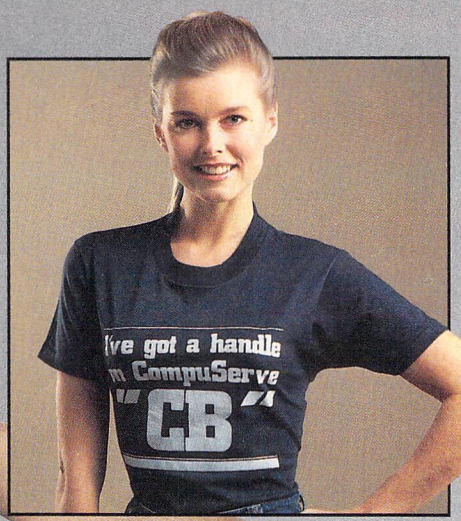

BlackDragon T-Shirt

NEW! If you've traversed the Labyrinth, bartered with your gold, engaged the evil Arch Demon and earned admittance to the BlackDragon Explorers Hall Of Fame . . . (or even if you've done nothing more than hike this enchanted land) . . . you owe yourself a BlackDragon T-shirt. Available in white on black and in small, medium or large sizes.

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CompuServe Solar Calculator

This wafer thin, six function calculator is powered by cells that respond to solar or artificial light and comes with a carrying case. No larger than a credit card, it still holds a CompuServe command summary on its back.

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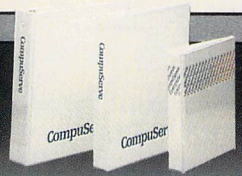

CompuServe's Three-ring Binders

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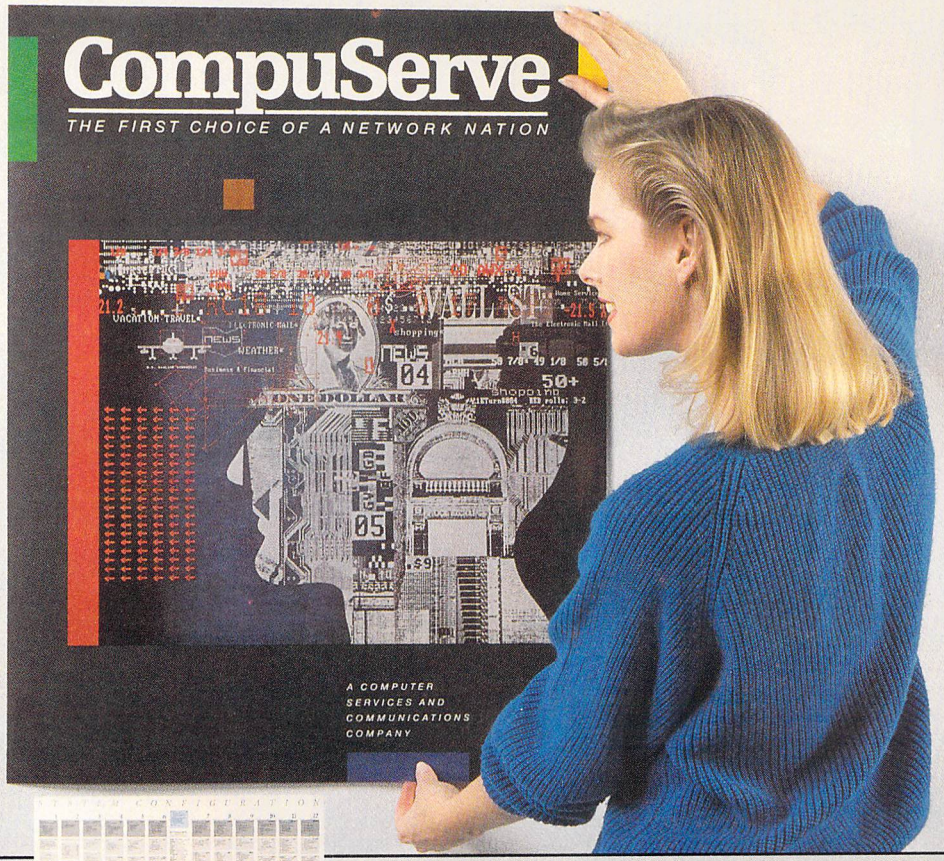

System Configuration Wall Chart
Know where you're headed and you'll enjoy a quicker trip. That's the logic behind this 33" x 35" Wall Chart. Includes an alphabetic Quick Word list and reproductions of all screens appearing on the Top Menu and all screens accessible from those initial choices.

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CompuServe: First Choice of a Network Nation (Poster)
NEW! World-renowned illustrator, Fred Otnes, was commisioned by CompuServe to provide a fine artist's vision of information age participation. His colorful and attractive solution is now a full color 23" x 30" wall poster. It is a handsome addition to the computer alcove of any home or office. Shipped unfolded in a sturdy mailing tube.

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FREE! As a special incentive to place an online order during the Fingershopping Sale period, any order over $25.00 placed between March 1 and April 31 will receive a NEW System Configuration Wall Chart FREE. The chart will be included automatically in qualifying orders, there is no need to enter an order for your bonus item.

GO ORDER at any ! prompt for more sale-priced merchandise!

Complete descriptions and prices for all products available for fingershopping can be found online. GO ORDER at any ! prompt. Enjoy special savings on selected products.

GUIDES

- CompuServe Information Service Users Guide — with reference cards and a Service Menu Diagram (same guide as found in the Subscription Kit).
  Reg. $14.95 **PRICE $10.95**
- EasyPlex Users Guide (now included in current Information Service Users Guide) (new 7/85).
  Reg. $7.95 **PRICE $6.95**
- Forum Users Guide (now included in current Information Service Users Guide) (new 7/85).
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- 35" x 33" System Configuration Wall Chart.
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GAMES MERCHANDISE

- Guide to CompuServe Games — available 3/86.
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- MegaWars I Commander's Briefing Guide.
  Reg. $7.95 **PRICE $5.95**
- MegaWars III — The New Empire Users Guide.
  Reg. $6.95 **PRICE $4.95**
- 350 Point Adventure Game Map.
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- 751 Point Adventure Game Map.
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- Adventure Game Color Poster.
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- MegaWars Spacecraft Blueprint Series: all five ships and galaxy map — a $10.00 value (also available individually).
  Reg. $6.95 **PRICE $5.95**
- MegaWars Color Poster.
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GO EBB or circle 7 on the Reader Service Form.

Assorted Bits

Apple Computer President and CEO John Sculley recently told a group of securities analysts that he and his fellow Apple executives are pleased with the company's prospects and are "strong and confident in our future." He also said that Apple will increase research and development by at least 50 percent in 1986 and in the future will create product lines that are "powerful, open and expandable."

Bad news for system crackers. The Federal Communications Commission has decided to modify its rules so that new automatic-dialing devices must quit calling after 15 successive attempts. The FCC said that automatic re-dialing equipment can jam telephone lines and delay calls for everyone.

Epson Corp., the big printer and not-so-big microcomputer maker, says it has merged with its parent company, Suwa Seikosha Co. Ltd. of Hirooka, Japan. The new company will operate under the name Seiko Epson Corp. The firm says the merger will not affect brand names, overseas marketing or distribution.

IBM has announced price increases for selected IBM Personal Computer software programs. The increases affect 139 of the more than 475 PC programs offered by Big Blue. The majority of the increases, based on IBM single-unit prices, are between 8 and 10 percent. However, the price of IBM's PC-DOS has risen 30 percent to $85 from $65.

Fujitsu America Inc. has formed a new division to market floppy disk drives in the United States. The division, called the Flexible Disk Products Group, will market 3½- and 5¼-inch drives as well as 3½-inch disks.

Personal computer pioneer Andrew F. Kay recently stepped down as president of Kaypro Corp., the company he started in 1952 as Non-Linear Systems Inc. Taking the 65-year-old Kay's place is his son, David. Forty-year-old David Kay, who holds a bachelor's degree in mathematics, has been vice president for marketing and new product development for the computer maker since 1980.

The Software Publishers Association reports that it is more than two-thirds of the way toward its goal of $50,000 to fund a campaign against copyright violators. By late 1985, SPA members had pledged more than $33,000 to the war chest, including $20,000 from four companies — Activision, Spinnaker, Broderbund and Infocom. The SPA initiated the drive last June to "implement a realistic action-oriented program to frustrate illegal copying of microcomputer software."

Apple and Digital Research Inc. have reached a settlement in Apple's complaint that DRI's GEM software violates certain Apple copyrights. Under the agreement, DRI will pay Apple an undisclosed amount, alter the style and format of its advertising, disclaim any GEM program compatibility with Apple products, and state that GEM programs and Apple programs do not perform in the same manner. The settlement also calls for DRI to produce new versions of GEM, "designed to be substantially different than Apple's Macintosh personal computer in both screen appearance and operation." The programs to be modified include GEM Desktop, GEM Paint and GEM Draw.

IBM has unveiled a new version of its high-powered PC-AT. The enhanced system features a 30MB hard disk, 512K of user memory and a 1.2MB floppy disk drive. A second hard disk also can be installed. The price for the new system is $5,995. IBM has also announced a $1,995 upgrade kit that allows installation of the new hard disk in earlier PC-ATs.

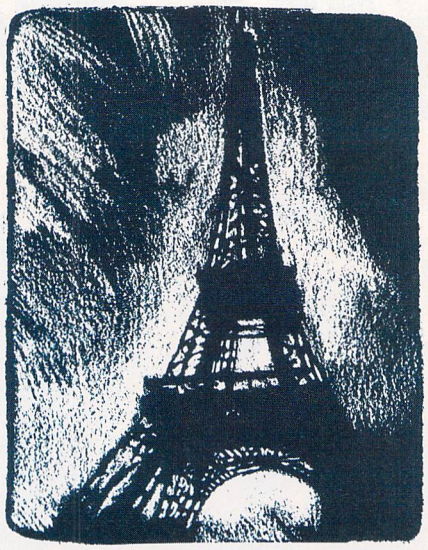
— John Edwards

Talking French

France now has its own nationwide CB-like communication services. Antigel and SM, both available on the nation's Kiosk videotex system, allow interactive, real-time computer conversations, just like their American counterparts.

The two services share a similar format. Participants can check into a "Chatting Lounge," which allows conversations between three to five persons, or a "Private Lounge," which accommodates a pair of chatters. As in the United States, nearly everyone on the French services uses a pseudonym. Users pay a connect fee of 61 francs per hour (roughly $8), which is applied to the monthly telephone bill.

The French seem to like what they're seeing. The two operations have proved so popular that they occasionally threaten to overwhelm France's national packet-switching network. Both services are adding extra entry ports to accommodate an ever-growing volume of callers.



Antigel, incidentally, translates into English as "anti-freeze." We won't hazard a guess as to what the letters "SM" may signify.

— John Edwards

Check The Oil? How's The Modem?

Car buffs now have their own online database.

AutoComp, based in Fond du Lac, Wis., is a new information service that caters to the automotive professional and serious hobbyist. Looking for a new windshield for a 1956 Nash Metropolitan? Want to know how to install a universal joint in a 1984 Ford Tempo? AutoComp is the place to look for information and help.

The service is the brainchild of Jim Bates, an auto parts company technical service director. According to Bates, the database aims to provide instant technical information for professionals and an educational resource for backyard mechanics. To that end, AutoComp contains articles by "leading automotive writers," an electronic mail system, an open access bulletin board and an extensive auto parts database.

Bates notes that the service is already being used by several companies in the automobile industry. He now hopes that members of the general public will come online.

You can reach AutoComp at 414/923-5514. A 12-month, 20-call subscription is $12.

Artificial Intelligence On The Road

Artificial intelligence is the stuff of which science fiction is made, and, recently, the stuff of which real science is made.

In an effort to show the achievements of artificial intelligence to the general public and preview what is still to come, the Museum of Science in Boston, Mass., is preparing a traveling exhibition titled "The Age of Intelligent Machines."

"Artificial intelligence has grabbed the public's imagination. It is woven throughout our society," said Dr. Roy Gould, coordinator of the exhibition that will travel the country from 1987 through 1989. "The exhibit will underscore the potential of artificial intelligence while graphically showing the capabilities we have already harnessed."

The future does sound exciting: Robots will move, touch, recoil, press ahead. Computer terminals will display the spoken word. Designs for objects ranging from cars to computer chips will unfold on electronic screens. Machines will read and translate the written word into actions.

Among the fields represented in the exhibition are robotics, machine vision, speech technology, computer-assisted instruction, music synthesis, natural language understanding and advanced graphics.

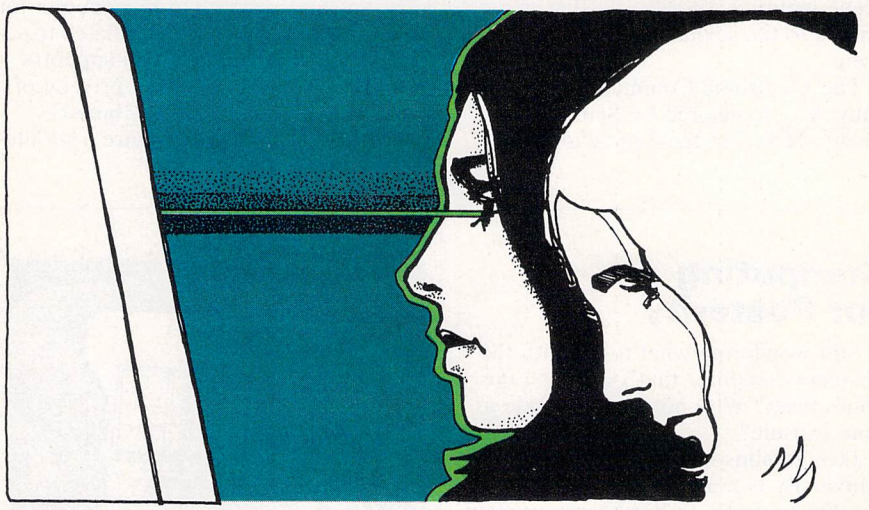
A board of advisors, including such industry heavyweights as Raymond Kurzweil, Marvin Minsky, Sherry Turkle, Paul Cohen and Edward Feigenbaum, will guide the Museum of Science to ensure that the appropriate areas of artificial intelligence are represented correctly.

"There are many applications and theories for artificial intelligence. We want to get them right and do more than just display showy toys. We want the exhibit to be intriguing and stimulating," emphasized Gould.

Transforming all of this into a 4,000-square-foot exhibition is expensive and intricate. Gould says the museum is still seeking corporate sponsors willing to donate money as well as equipment.

— Cathryn Conroy

Women's Groups And Lawmakers Glare at VDTs



Are computers hazardous to your health? There is no warning from the surgeon general on the boxes of new machines, but, figuratively speaking, some lawmakers and women's groups might want one.

The National Association of Working Women, known as "9 to 5" and Service Employees International Union jointly launched a national campaign a little more than a year ago to encourage video display terminal safety. Their message is clear: Protect workers and research potential VDT hazards.

So far, six states have heeded the call and passed legislation pertaining to VDTs:

- Washington has issued specific guidelines to help workers handle potential radiation hazards, possible reproductive risks and physical and mental stress. Free safety and educational consultations are also provided.
- California has set up guidelines for antiglare screens, detachable keyboards and adjustable VDT furniture for future purchases of equipment.
- New Mexico's regulations call for adjustable work stations, controlled decibel and temperature levels, proper work space lighting, preplacement eye exams for operators and employee/management discussions regarding VDT policies.
- Rhode Island's state legislature passed a law requiring the Department of Labor to develop workshops and training sessions on VDT safety.
- Wisconsin and Massachusetts have similar laws on the books, and several other states are considering legislation.

The 9 to 5 organization is particularly concerned with pregnancy hazards. Citing a recent Japanese study that recommends pregnant workers not use VDTs until further testing determines whether the terminals are harmless, the organization is combining efforts with Dr. Irving J. Selikoff of the Mt. Sinai School of Medicine to study the possible connection between radiation emitted from VDTs and pregnancy hazards.

The study will be conducted over a four-year period. Nearly 12,000 volunteer office workers will be recruited to complete questionnaires during the first three years with analysis of the results taking place in the fourth year. Other office-related factors, such as stress, ergonomics and chemical toxins also will be investigated.

The Japanese have reported that more than one-third of pregnant VDT workers surveyed experienced problems during pregnancy or delivery, including miscarriages, premature births and stillbirths. The women who participated in the study worked at VDTs six or more hours a day.

On Capitol Hill, lawmakers are studying the issue. Although they recommend further radiation studies on the low-level radiation typically emitted by VDTs, they generally oppose federal legislative regulations. A report issued by the House Education and Labor Subcommittee on Health and Safety recommended more employer-sponsored VDT education programs, with employees and employers working out their own guidelines for using the equipment.

However, the Congressional report did state, "Scientific knowledge at this point in time strongly suggests that there are no problems with regard to radiation exposure from VDTs."

New Laws May Restrict Micro Communication

Are computers the latest high-tech tools for crime or are they the means of achieving freer speech in our democratic society?

This is the great debate raging in Congress and in some state legislatures, particularly California. Laws are being introduced to combat computer crime, but will these laws necessarily reduce freedom of speech?

Two pieces of legislation pending in the Senate and one in the House of Representatives specifically are designed to restrict the electronic communication of ideas. The Computer Pornography and Child Exploitation Prevention Act, introduced by Sen. Paul Trible, R-Va., would make it a crime to transmit obscene material, specifically that pertaining to the sexual exploitation of children.

The Electronic Communications Privacy Act, sponsored by Sen. Patrick Leahy, D-Vt., in the Senate and Rep. Robert Kastenmeier, D-Wis., in the House, would offer computerized communications — including electronic mail, cellular radio telephones, direct computer-to-computer links and microwave transmission of telephone signals — virtually the same privacy protection currently provided for telephone conversations.

On one side is the legitimate concern that computers are being used to violate rights and harm individuals; on the other side is the fear that protectionist laws will serve only to diminish our freedom of electronic speech.

Jerry Berman, director of the American Civil Liberties Union's Privacy and Technology Project, believes that many pieces of computer crime legislation cast an almost universal net that could limit many uses of computers, as well as subject innocent persons to prosecution for trivial uses of computers unrelated to actual criminal deeds. Berman supports laws that would protect the privacy of electronic communications, but acknowledges that it will require a statutory law.

Others, such as Donn Parker, an SRI International consultant and expert on computer crime, believe the laws should be broad enough to cover simple computer misuse. He says, "Crime is a constant; only the means have changed."

But perhaps this debate is hedging the larger issue: a redefinition of property rights as stated in the Fifth Amendment of the Constitution, according to Abbe Moshowitz, a professor at City College of New York. Moshowitz views information as property, resulting in some who have information and others who do not. He says that it is possible to identify as criminals those who inadvertently or deliberately challenge existing social relations built on information differentials.

For complete information on federal computer legislation, type GO OLT-3000 at any prompt in the CompuServe Information Service.

— Cathryn Conroy

Computing For Posterity

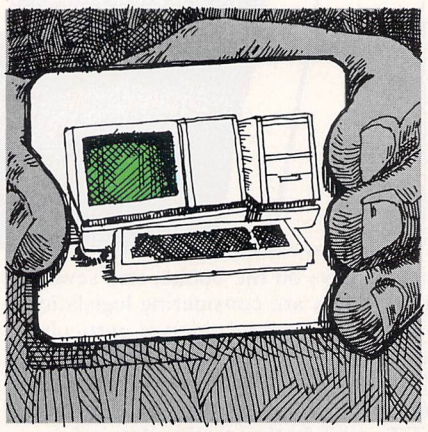
Still wondering what to do with the obsolete computer that's clogging up your closet? Why not stuff it inside a time capsule?

Jack Tomlinson of San Francisco State University is a man with a dream. Tomlinson wants to bury cargo containers across the United States in an effort to tell our distant descendants a little bit about life in the late 20th century. But unlike other time capsules, which usually contain esoteric items like bits of newspapers, microfilmed best-sellers and presidential campaign buttons, Tomlinson wants to fill his capsule with actual, full-size examples of everyday American life.

In addition to computers, Tomlinson will accept such jumbo representatives of modern culture as washing machines, refrigerators and automobiles. "I'll take anything anybody might think is interesting," he says. You can get in touch with Tomlinson by writing him at 858 Tollhouse Gulch Rd., Fenton, CA 95018.

This may be the opportunity IBM has been looking for. Wonder how many PCjrs can fit inside a cargo container?

— John Edwards



Don't Go Anywhere Without It

SmartCard International (the company that brought us the credit card with a built-in microprocessor) and General Instrument Corp. currently are working on what they call "the ultimate transaction card."

UltiCard will be the same size as an ordinary credit card but will contain a host of high-tech gizmos, including a 64K microprocessor/memory chip, a touch sensitive keyboard, a coded magnetic stripe and — hold onto your wallet — an internal display screen. The card will be powered by a self-contained battery with a life expectancy of about two years.

"As a full-fledged wallet computer, the potential applications for the UltiCard are virtually limitless," says Arlen R. Lessin, president of New York-based SmartCard International. "In addition to financial transactions and credit/debit retailing, applications include security access; personal, medical and other records; government and military social services; foreign currency conversion; language translation; and clock and calculator functions."

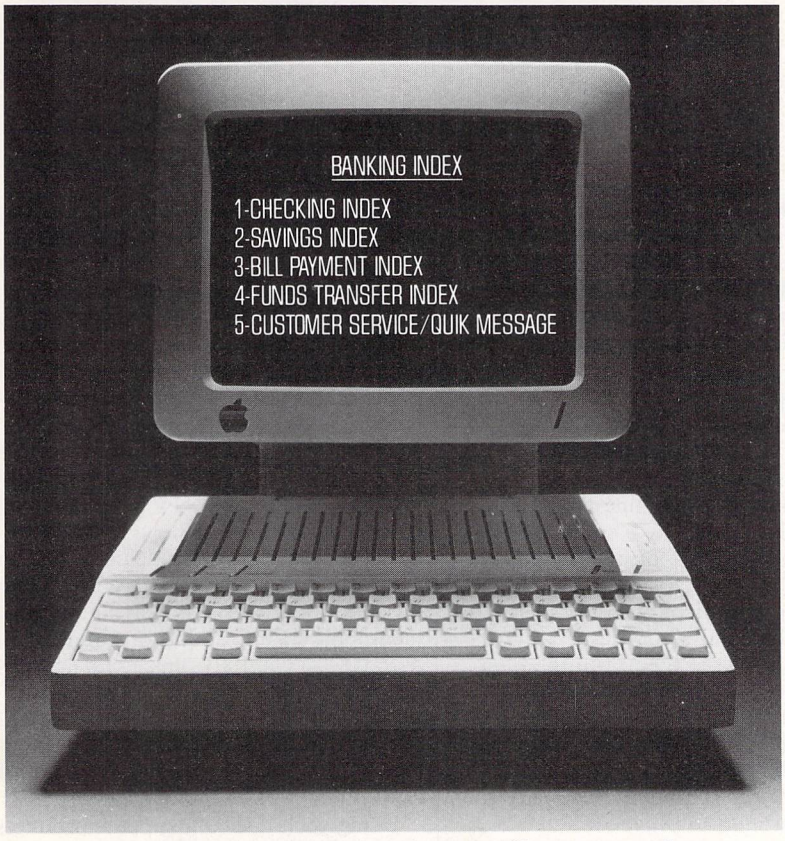
Down the road, Lessin sees additional applications. "Enhanced versions of the smart UltiCard device could include such consumer-oriented functions as electronic phone books and auto-dialing, artificial intelligence, calorie intake calculation and diet records, and micro-radio capabilities. All of these functions potentially can be combined in one card that will be very easy to use." He notes that his company currently is working with companies in the United States and abroad to develop terminals that can handle UltiCard transactions.

Lessin says the first UltiCards should be in consumers' hands by 1987 or 1988.

No word on whether UltiCard will warn you if you're about to leave home without it.

— John Edwards

BANK IN PAJAMAS.



It's just one advantage of a computer banking service: You no longer have to get dressed up and go out to do much of your banking.

Instead, you can use a personal computer at home (or almost anywhere else) to take care of most of your routine banking business.

You can pay your bills by computer, get your account statements by computer, even move money between accounts by computer.

And you probably have just what you need to get started: a computer that can send data over telephone lines and your subscription to CompuServe® on-line information service. So you just need to establish a banking relationship with one of the financial institutions listed below.

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Meritor Financial Group

For more information, circle reader service card number 008 for NCNB, Charlotte, NC, 009 for Southeast Bank, Miami, FL, 010 for Bank One, Columbus, OH, and 011 for PSFS, Philadelphia, PA. Members FDIC.

FEATURE

CALCULATING YOUR RISKS

USING ONLINE DEMOGRAPHICS

By Yvonne H. Burry

Expanding into a new market area is the sort of calculated risk that many businesses thrive on — as long as there are good, solid calculations based on facts to accompany the risk. Key considerations, like 'Will the neighborhood support my business?' can be answered by tapping into demographic data on the proposed site. But the vast repository of U.S. Census Bureau data — the primary demographic source — may be nothing more than a source of frustration and high costs unless the information can be retrieved quickly and efficiently.

When a company known as CACI Inc.-Federal entered the demographic data business picture in the early 1970s, a major shift in accessibility occurred. At first, CACI was an official summary tape processor of the 1970 census. From its early task of compiling data, CACI has pioneered updates and forecasts for small areas, using proven methodologies, retrieval of data by a variety of parameters and geo-demographic market segmentation analysis — the sorts of tools that make sales potential assessments much more than guestimates. Access to such products through CompuServe's Business Information Service and Executive Service Option has simplified the front-end analysis so vital to essential marketing decisions.

Neighborhood Analysis with ACORN

When SOHIO recently introduced its ProCare concept in automobile repair facilities, that company tapped into several CACI products available through CompuServe. SOHIO financial analyst Jane Berkeley says this "flagship operation" consists of units typically having five service bays, four technicians and a manager.

"We use the ACORN (A Classification of Residential Neighborhoods) analysis to define which areas are likely to have the customers we're trying to serve," says Berkeley. With some potential site areas in mind, she says, company representatives will drive through and examine the areas. SOHIO then uses ACORN to analyze specifically-defined areas. They usually run 20 of the 44 ACORN categories, weight them, run the number of households and run this data through a model to get a weighted average — what they call the "ACORN number." In this qualifying process, a minimum ACORN number is necessary for site exploration to proceed.

Next, the Automotive Aftermarket Sales Potential Report (SITE.POTENTIAL option 20) is run "to see how much money there is for automotive expenditures," says Berkeley. "ProCare is run as an independent business; it is not the same as the gas business and shouldn't be treated the same." The aftermarket reports help determine whether the ProCare site could support five or more bays. Since SOHIO had already determined that the sales potential for a ProCare site would have to be $8,500 per month per bay, Berkeley says, the company was looking for verification on sites they were considering.

The online demographics have been useful in screening small Ohio towns to determine their potential for supporting a ProCare unit. With SUPERSITE, a point — generally in the center of town — is chosen and a radius defined. Often a one-mile radius encompasses the entire town to provide a full demographic spectrum. Berkeley says they have found that while towns may have looked similar from other analyses, including site inspections, they were not so equal when the data was retrieved. Relying on demographic data for decision support, SOHIO has carefully chosen its markets and successfully introduced this new service concept. At present, there are 31 ProCare facilities in operation; by the end of 1986, SOHIO expects to have 80 locations.

Using such decision support products as SUPERSITE, SOHIO has integrated the data into proven in-house analytical techniques to help with vital decisions in the months to come.

Picture-perfect Data

Integrating demographics into established market research techniques is only one of many ways to use the data. CPI Corp., which operates 660 full-time, permanent portrait studios in Sears stores nationwide, is shifting its analysis efforts away from classic market research and toward a heavier reliance on

data from CompuServe, according to a company spokesperson.

Portraits are a $1 billion a year business in the United States. Now CPI is diversifying its concept to include free-standing portrait studios in malls where Sears does not have stores. "Using SITE.POTENTIAL reports and various other sources of information, we are carefully researching additional sites throughout the United States," the spokesperson said.

In addition, telemarketing efforts for the Sears studios take full advantage of 1985 ACORN profiles. Special unadvertised offers are sold to customers in several markets. Calls made from the St. Louis headquarters to households pinpointed by ACORN are yielding completed sales figures somewhat higher than industry norms. CPI uses such ACORN delineators as B6 (Young families, high mobility) and G24 (Young families) for this effort.

ACORN reports are also used to concentrate efforts in direct-mail offers for another product line, CPI Photo Finish. These minilabs are self-contained units specializing in a one-hour turnaround for processing. Minilabs (there are nearly 170) are being concentrated in major metropolitan areas in the eastern half of the United States. Several demographic products have been employed to screen potential locations. For example, key demographic data from SITE.POTENTIAL runs are plugged into a CPI marketing model that has been tested for reliability. Typically the MPI (Market Potential Index) and MGI (Market Growth Index) have to fall within a specified range, or CPI won't continue its interest in a site.

CPI generally runs a six-mile radius, with a specified population density in mind. CPI rates a site by targeting the number of adults 18 to 44 years of age, income brackets of $25,000 or higher, and the number of single-family dwellings. However, according to the spokesperson, in areas such as Tampa-St. Petersburg where a skewed population distribution exists, the radius may be extended, and income level is not as important. CPI can tailor a data run to specific considerations.

Sales representatives can contact corporate offices, giving the latitude and longitude points of malls, street intersections or shopping strips for expansion sites, and generate a report for their purposes. Each year, CPI runs the CACI-updated demographic data on each actual or potential site. Any significant shifts in the numbers will be channeled into changes affecting marketing policy.

Jane Berkeley, SOHIO: "We use the ACORN analysis to define which areas are likely to have the customers we're trying to serve."

At present, CPI plans to put together a sales forecasting model using data from minilabs that are stable and at least one year old. CompuServe's STATS II statistical analysis package will be used to determine the factors most important in minilab site location. Such uses of demographic products will allow CPI to pinpoint good minilab sites and know why the sites are good. Until now, the significant factors were identified by tapping the best guesses of analysts. Soon the factors will be based on instinct *and* data.

Customer Surveys Pay Off

The Taubman Co., headquartered in Detroit, includes such diverse businesses as Sotheby's art auction house in London, A&W Great Foods Restaurants, Woodward and Lothrop department stores, and a part ownership in the Oakland Invaders USFL football team. And while the company assists these groups with demographic support data, the principal use for such information is for the 20 regional shopping centers Taubman currently owns and operates.

Marketing Analyst Harriett Edwards says that Taubman uses a number of techniques combined with demographic data for marketing purposes. One type of survey, for example, involves going into a shopping center parking lot and recording license plate numbers. By matching the tags to area addresses (via an outside source), Edwards says that a polygon of the trade area can be established.

Edwards then uses CACI products to get a demographic profile of the people who drive those cars. In one instance, the license plate survey was conducted when one of Taubman's shopping centers was showing a decline in customers from an area that should have been a strong financial supporter of the shops. Edwards says, "We looked at the area from 1970 through 1985 using the Census Profile and Income Profile reports plus ACORN data." Based on the results of that customer profile, Taubman marketers designed a direct-mail campaign for selected households and used a specially planned billboard. Sales improved markedly after only three months of effort. One year after the campaign began, sales were higher than they had been originally. "When we view a customer profile for a center, we can customize ads and speak directly to the customer," says Edwards.

"There's always something else that triggers our look at a trade area," she says. That something might be a verbal survey of shoppers or some other research instrument that reveals a trend

needing verification or explanation. Such products as SUPERSITE and ACORN may then be brought into the picture.

One such situation occurred when Taubman learned that approximately 20 percent of the customers in one shopping center came from a certain ZIP code. Why so many customers from that area? What kinds of people were they? What common threads did their lives have that could be targeted to launch a marketing campaign to similar people in other areas? To answer such questions, Taubman enlists the SUPERSITE/ACORN approach.

Edwards says the research group can also use the same data acquisition strategy in another way. Similar license plate/demographic data analyses can be, and are, run on their competitors' shopping centers. This, too, gives valuable marketing data.

A different and very important part of Taubman's service is to provide information for existing or potential tenants of their shopping centers. "By using demographic data and lifestyle information from ACORN," says Edwards, "we can use one of our marketing models (each tailored to the region in question), take standard report material and make it usable to the retailer."

For The Taubman Co., demographics has been a way to provide an overview of a new or existing site. Such thorough data obviously may provide negative as well as positive trends in a neighborhood, but the overall effect has been helpful to retailers wanting to appraise a neighborhood accurately. For retailers, Edwards suggests that SUPERSITE and ACORN data are more useful because they are based on accumulated facts. She says the SITE.POTENTIAL reports, while very helpful, by their nature are somewhat more speculative, and so are used more for secondary support in presentations to potential tenants.

Yet, projecting present data five years into the future can be important from a managerial point of view. Edwards says that she depends on projections to help determine a future tenant mix. If the population in the neighborhood around a shopping center is experiencing a rapidly rising median age, then it might not be a good idea to have a shopping center that emphasizes "junior" sizes, she says. In fact, in that situation, Edwards might suggest that juniors be phased out by 1987.

Taubman is also using DORIS (Demographic Online Retrieval Information System) and SUPERSITE to assist in the planning stage for five of their developments. For these mixed (hotel and shopping) or plain shopping centers, the marketing staff provides the leasing department with a view of the area market (often a 10-mile radius), projections of that market in 1990, the lifestyles of the market, and their marketing suggestions. "The leasing department listens to our recommendations," says Edwards.

Harriett Edwards, The Taubman Co.: "When we view a customer profile for a shopping center, we can customize ads and speak directly to the customer."

Edwards has a particular favorite in DORIS, which allows Taubman to search through more than 66,000 census tracts in the United States for those that meet its marketing criteria. "I like being able to tailor my information, such as asking for the largest household income counties in the United States. I like to design my own report," she says. Edwards also has used Spectrum, CompuServe's graphics package, to generate pie and bar charts to show how certain areas have changed between 1970 and 1980. She also has produced income and population growth maps for counties of interest.

The Taubman Co. has even run demographics on itself — that is, on its central office in Detroit. The results have been forwarded to the personnel office, so they know where to recruit employees and how far such employees might have to travel to work.

Managing Real Property

Hall Financial Group, based in Dallas, also applies decision support demographic tools on an as-needed basis. The company has three specializations — real estate, financial institutions and investment in diversified businesses. Hall's real estate businesses include acquisitions, property management and securities. Real estate properties are scattered all over the United States, while financial institutions are in Texas.

Stan Kowalsky, director of research, says, "We use CACI when we are considering making an investment in an apartment building. We do a two-mile radius and run Reports 1 and 2 (1980 Census Profile and Income Profile) to look at trends." Kowalsky, whose background includes research positions with chambers of commerce, says that the property management company also might use the demographic data if they begin to see a big turnover at a complex. An analysis of the data for the complex and its immediate neighborhood might show a lot of moving in or out; or it might show actual changes in the types of people choosing to live there. Such information is essential for establishing strategies to stabilize the tenant population. "When we notice demographic changes," says Kowalsky, "we make marketing strategy changes."

Hall representatives typically run the census and income profiles for areas of interest. These are provided to property managers who need them for reports or presentations. Having data pinpointed to the location of a property can help justify action on properties Hall owns, manages or might acquire.

The financial institutions under Hall's umbrella operate separately from the the real estate branches; however, they do need to confirm independently a property's long-term worth before proceeding with loan processing. Demographic data helps loan officers be certain that they know the demographics in the area around a particular property in a loan application. "We spent $100 to get the report," says Kowalsky, "but we cut down on the chances of dealing with poor risk property."

Tailor-made Systems

Not every organization that might benefit from decision support products is able to receive or process SUPERSITE, DORIS, ACORN or other databases available on CompuServe. This is true for many members of the National Advertising Agency Network. NAAN runs a private videotex system on CompuServe with menu choices linked to InfoPlex, private NAAN databases, and services such as SUPERSITE, USA TODAY Update and others. This kind of system, called Interchange, is tailored to NAAN's specifications.

One of NAAN's member agencies, Finnegan & Agee, headquartered in Richmond, Va., is supporting internal marketing needs with demographic data. Head of marketing services Steve Toler says that "as an ad agency, we've explored ways to expand our clients with more and better services." Finnegan & Agee's $20 million annual billing includes the Virginia Safeway stores, Thalhimers department stores and Moore's Building Supply stores. "With our retail clients we try to quantify and qualify markets that they are in."

Although Toler views his agency as small, he is proud that in the past 14 of Finnegan & Agee's 23 years of operation, most clients have remained loyal. "As we move into the next decade and beyond, the key is to minimize risk." So Toler sees CompuServe's Business Information Service data as cost-effective and powerful enough to allow them to compete with agencies several times larger. "We are not looking to have everything," he says. "We're just looking to fill in the holes in our perspective, to help clients any way we can."

To do this, Toler uses SITE and SITE.POTENTIAL reports to determine market potential. He recalls an example of a site being investigated. It happened to be the terminus of five ZIP codes, so an analysis by any or all of the ZIP codes would be too general. A radial view would be much more powerful. So Toler weighted concentric circles around the point, figuring 85 percent of market potential would live in the first mile radius, and most of the other 15 percent within the one- to three-mile outer circle. Distances and weighting were adjusted according to the situation. "From our perspective, this is much more information than was available before, and it's easy for the client to understand." Toler adds that he is now able to supply daytime populations for target sites — an important plus for retailers.

Stan Kowalsky, Hall Financial Group: "We use CACI when we are considering making an investment in an apartment building. We do a two-mile radius and run the 1980 Census Profile and Income Profile to look at trends."

Toler repackages a lot of the data he receives through CACI and the CompuServe support. If certain data points are lacking, he has developed ways to interpolate into the data. He uses Lotus 1-2-3 (to download for selected attributes in PRN format), a French software package to do statistical analyses, and another software package based on decision tree modeling. He also has ordered other products directly from CACI — such as maps and grid overlays — when needed.

Steve Toler, Finnegan & Agee: "From our perspective, this is much more information than was available before, and it's easy for the client to understand."

Toler wears another hat — that of captain of a support access network within NAAN. There are approximately 50 advertising agencies nationwide that are NAAN members. Since no two member agencies are in the same trading area, they are enthusiastic about exchanging information and helping each other. Both NAAN headquarters in New York and Toler's office in Virginia have full data access and processing capabilities, but many of the other member offices do not. They may lack the hardware or software, or they may not have personnel trained to do further analyses of the data.

Although all NAAN agencies are linked by electronic mail and have the Executive Service Option, their ability to access information by ZIP code or county, through the version of SUPERSITE available on Interchange, may not be adequate for every situation. So Toler acts as a sort of information broker to assist other agencies. When a member agency wants a complete report that might include manipulation of the data, Toler can download the data, process it and then forward it (on a net cost + connect time + analysis cost basis). "This allows agencies, which are the forefront of the service industry, to be very competitive," says Toler. He adds, "The more service and counsel you can give, the more competitive you can be."

Honing the Competitive Edge

Putting these decision support tools through their paces is as appropriate for a Fortune 500 company as it is for a small organization striving to give its personnel the best possible data for marketing purposes. The more a company knows about its potential site and the neighboring consumer public, the greater chance that marketing decisions or persuasive presentations will be right on target. When multiple development sites are part of the corporate picture, or when new territory is being charted, the highly detailed demographic data available might just be the sort of information that can hone the competitive edge.

Yvonne H. Burry is a free-lance writer from Columbus, Ohio. Her CompuServe User ID number is 76703,3057.

For more information on the Business Information Service products mentioned in this article, refer to page 31.

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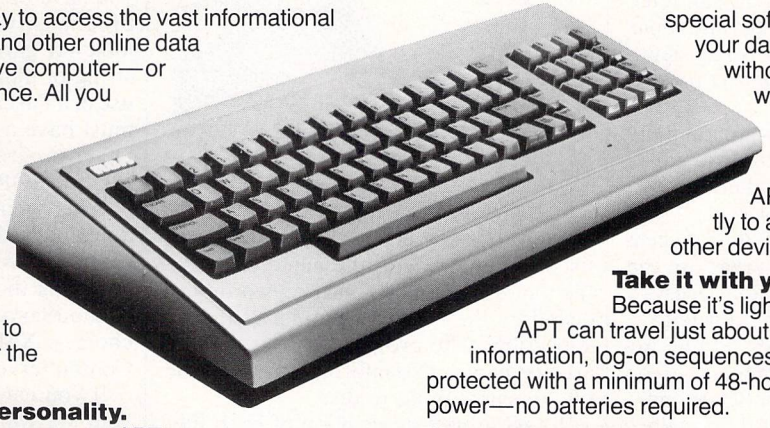

Get on line in seconds.
With the touch of single key, the APT terminal can dial the data base you select, log into the host computer, and return control to you, to begin your search for the information you want.

APT's programmable personality.
For example, you can pre-program APT to match the communications requirements of CompuServe and other data bases you select. The auto dial feature provides tone or pulse dialing of up to 26 stored telephone numbers for voice or data base calls, with log-on sequences entered automatically after dialing. Password protection can limit access to designated numbers.

Built-in modem.
APT is available with your choice of either a 1200/300-or 300-baud modem that connects directly to your phone line.

Professional keyboard design.
APT has a 60-key typewriter style alphanumeric keypad plus a 16-key calculator pad for quick entry of numerical data and phone numbers.

Two user keys allow convenient selection of printer or other operating modes. Four user-programmable function keys save entry time by sending a multiple character string to the host computer with a single keypress.

Standard monitor or TV display.
APT terminals have video output for either an 80- or 40-character by 24 line display on a standard monitor, as well as 40-character output for a TV set display. The 24th line can be selected to display telephone, printer and on-line status.

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Even if you already use a personal computer, it probably requires a modem, communication board and special software to communicate with your data base. APT can do it without costly add-ons, and without tying up an expensive computer system designed primarily for other tasks. With its RS232C port, APT can also connect directly to a computer system or other devices.

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The price is right.
The APT VP4801 terminal with built-in 300-baud modem lists at $498; the VP5801 with built-in 1200/300-baud modem lists at $798. The optional VP4012D display monitor is $199 list.

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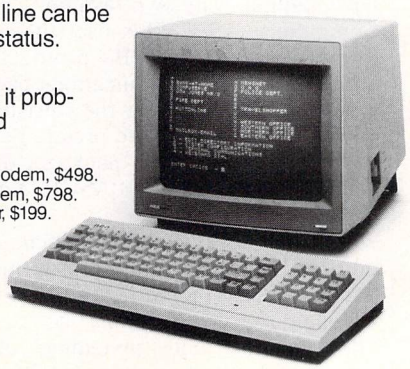

APT VP4801, 300-baud modem, $498.
APT VP5801, 1200/300-baud modem, $798.
Optional VP4012D display monitor, $199.

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RCA
New Products Division

GO EBB or circle 12 on the Reader Service Form.

All About Downloading

Yesterday, I got a rather whimsical EasyPlex. What causes the biggest troubles among your readers, it asked. What's the biggest problem of all?

The answer was easy: downloading.

But is it really that hard? Alas, it can be. The difficulties arise through no fault of the CompuServe network itself. Instead, they are born of confused terminology, a multiplicity of terminal communications programs and badly written software instructions. Virtually all telecommunications programs permit some form of downloading. Surprisingly few do a creditable job of telling the user how the process works.

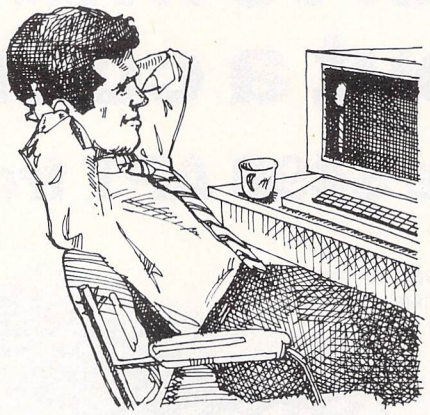
Let's look over your downloading opportunities and consider how you can capture some of the goods therein. Among the most popular of CompuServe's features is Public Access and Forum Access. These areas are the system's libraries; they contain everything from text-files, art and music to computer utilities and games. Public Access is the main library, connected to no particular section of CompuServe and full to bursting with files. Additionally, each online forum has a set of data libraries, comprising the forum's own specialty store.

The files in these libraries are submitted by CompuServe subscribers like yourself. Many are free for the asking. Some are "shareware," which you download and then send the author a nominal fee as payment. Some are self-contained programs, while others work with programs you already have.

Getting to Public Access is simple: just enter GO ACCESS from any prompt on the CompuServe Information Service. Similarly, finding the data libraries in a forum is as easy as typing "DL" at the forum's function prompt and answering the prompt that asks for a DL number. If you're unsure, the name of every data library will be exhibited at your request.

The first step in downloading a program is finding the program you want. The command "Bro" will scroll each file for you. Unless you want to read file descriptions for every program in a data library, you need a search command.

Keywords provide your most efficient clues. When those programs were uploaded (that is, sent into the system), the authors were asked to provide a brief list of words to help you find the right file. Keyword searches are invoked when you enter "s/key;word" using the keyword you want in place of



"word" ("s/key;music" for example). A list will appear, with the name of each file that uses "music" as a keyword, preceded by the User ID number of the subscriber who provided it. But these are just names. No information about the file appears. What to do?

To get a brief description of each file, you need to link the browse and keyword search commands. Suppose you want to find a good music file for your computer's music-playing program? Enter "bro/key;music" and read the file descriptions that follow.

Many files use the master program's name as a keyword. In that case, enter the name of your program after the semicolon. For example, if you wanted files for the Macintosh's Concertware program, you'd go to the Macintosh User's Forum by typing GO MACUS; enter DL5 at the forum function prompt for the music data library; and finally, type in "bro/key;concertware". You'll be astounded at the number of choices.

Now comes the tough part: actually downloading your choice. Each telecommunications package handles downloading in its own fashion. CompuServe's VIDTEX uses the CompuServe "A" or "B" protocols. Many terminal communications packages use XMODEM, or the Christensen protocol. Some software prefers binary downloads, while other packages demand plain English (or "ASCII") information.

Alas, a lot of the software documentation out there uses differerent terms interchangeably. "Reading" a file is not the same as "downloading" it; "downloading" and "uploading" are two different things; "receiving" a file can mean almost anything, depending on the context.

Read your software documentation carefully. Some software only permits one type of download. Others permit quite a few but demand that you pre-set the software for the protocol you want before you go online. A few allow you to choose while online, permitting the most versatility. And some packages allow you to only receive text files.

No matter how you retrieve your files, be certain you're not wasting time. Do you have the right software to use them? Programs, when captured as plain text, look like garbage. Some are an unending string of numbers and letters. To make use of a Pascal program, for example, you must have a Pascal software package. Other programs may be in Binary, BASIC, or FORTH.

When you've found a file to download, all you need to tell CompuServe is "D" right at the prompt following the file's description. CompuServe, in turn, gives you four choices: XMODEM, CompuServe "A," CompuServe "B" and "DC2/DC4."

If you can't find one of these four in your software documentation, choose the last, "DC2/DC4," and capture the file as plain text. There are drawbacks to this method, such as a lack of automatic error checking and no automatic file closings. You'll risk transmission errors, and you'll have to edit out extraneous material before compiling the program into a usable file. But it will almost always transmit into your capture buffer.

If you can receive one of the four protocols — and most software can — just tell your software the file is being sent. Then sit back and watch. Many programs will alert you to the status of the download, telling you how many "blocks" of information have been sent. Others just ask you to wait while they do the work. Virtually all inform you when the transmission is complete. Congratulations! You've just downloaded a file!

Some of you, though, may find that the system "sticks," failing to respond. Warning bells might sound, or your screen may freeze up. Should this happen, go to the computer forum that fits your terminal and leave a message requesting help. No matter how rare your software, it's a safe bet that many others on the forum have conquered its peculiarities. Eventually, you, too, will be an expert, helping others learn their way through downloading.

Alex Krislov is a free-lance writer from Cleveland. His CompuServe User ID number is 70007,2130.

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Financial Commentary

Using Online Data To Make Better Investment Decisions

by Scott Clyde

If you're a private investor who uses a discount brokerage and maintains a personal portfolio, there are many investment tools at your disposal.

Investment advisory and charting services such as Value Line and Daily Graphs have been available for many years and provide a good reference for historical performance and current financial condition. Annual reports and Securities and Exchange Commission filings are available to anyone who knows how to obtain them. Many microcomputer programs will download historical price and volume information from an information utility such as CompuServe and then chart it in several different ways.

Regardless of the kind of tools you may already use to do your own financial research, online information can enhance your ability to make informed trading decisions.

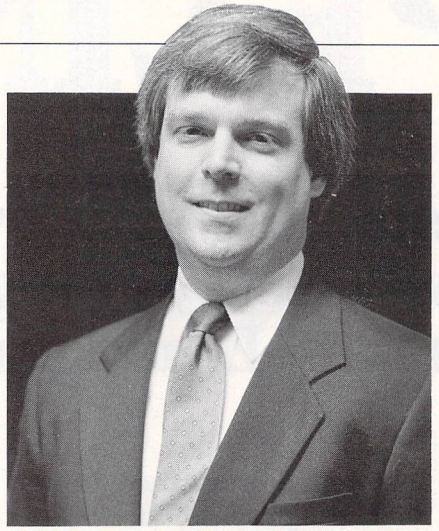
If you use online stock trading services from a discount broker, you will want online research capabilities through the same telephone call. That way, you won't have to remember as many commands or telephone numbers, and you'll have only one bill for both services.

Much of this online information historically has been available to financial

professionals. CompuServe has been selling identical historical security information to Wall Street firms since 1975 and CompuServe is used by almost all of the major stock research departments.

Identifying An Investment

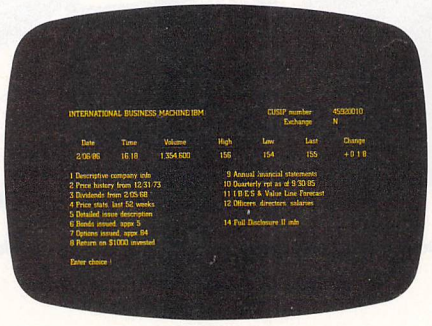
What kinds of questions should you be asking about any prospective investments and what kinds of information might you uncover through online investigation that may alter your investment



Scott Clyde, CompuServe: "Online information can enhance your ability to make informed trading decisions."

decisions? Probably the most commonly-asked question about any issue is 'How has it performed in the marketplace?'. Is the trend up or down? Is the current price closer to recent highs or lows? Is the current volume lower than normal, possibly indicating a price resistance level? And how has the issue performed in similar historical markets?

Price/volume charts are one way of answering these questions. They are available in printed form and through microcomputer software as well as online.



CompuServe's Ticker Retrieval service asks you to select the company you want to research. It will then display a menu of available information on that company. This is important, because various sources of information cover different groups of companies. Value Line, another financial service on CompuServe, follows 1,700 companies. Both the Standard & Poor's General Information File and the Institutional Brokers Estimate System (I/B/E/S) follow 3,000. Disclosure II follows virtually all (9,000) of the companies traded on NASDAQ or the exchanges. Because Ticker Retrieval's menu shows you what's available about the company you've chosen, you won't spend time looking for a company in a database that doesn't include it.

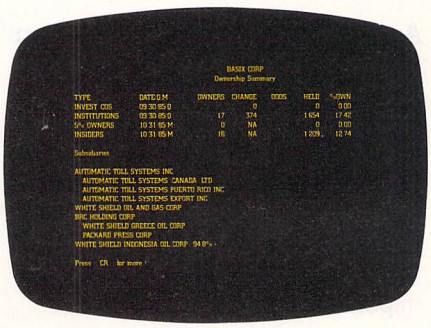
Researching A Company

Once you've identified a company, the next step is to learn all you can about it. One of the first questions to answer, because it is the least expensive, is 'Are there any nonfinancial situations affecting the outlook for this company?' This would include such things as pending lawsuits, recent acquisitions and takeover attempts from outside companies.

What is management emphasizing? What is growing and profitable? One useful source of information is the management discussion contained in the annual report — also available on CompuServe through Disclosure, a firm specializing in collecting and distributing information gleaned from annual reports and Securities and Exchange Commission filings. A second source is business segment data, available from Disclosure and Standard & Poor's.

Who are the competitors? Who is the "star" of the industry? What business developments currently are affecting competitors and do they have industry-wide implications? What is this company's market share? Perhaps, one of the competitors is being acquired. For example, by using the Standard & Poor's product on CompuServe you could find large publicly traded companies in the photography business. These companies would be presented as a menu from which you could access the business developments for each company. Perhaps, one has a lawsuit pending that could set a precedent for the industry or affect that competitor's ability to compete.

It's also important to find out who the owners are and whether or not there are any unexpected subsidiaries. Is the stock generic or is most of it owned by institutions? With the automated selling programs in existence today, institutional ownership certainly adds volatility.

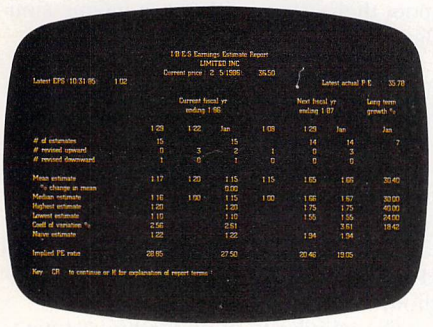


Finally, how tightly held is the company? This can affect its likelihood of becoming a takeover candidate. For instance, an ownership survey from Disclosure II for Basix Corp., a leading manufacturer of automatic revenue and traffic control systems, shows that institutions own 18 percent of the stock and insiders own 15 percent. What's revealing about this data, however, is that Basix is also in the oil business. In fact, energy-related operations depressed the company's 1985 earnings.

Opinions From The Experts

Do institutional research firms see any abrupt changes from past earnings performance? Perhaps, more importantly, are the opinions of these experts changing? If so, does the price/earnings ratio reflect their changing outlooks?

A report from I/B/E/S, the Institutional Brokers' Estimate System, shows that 15 analysts believe The Limited Corp. will continue to be a strong performer but will not be able to sustain recent earnings growth rates.



I/B/E/S Earnings Estimate Report
LIMITED INC
Current price 2 5/1986 35.50
Latest EPS 10/31/85 1.02
Latest actual P/E 35.78

	Current fiscal yr ending 1/86			Next fiscal yr ending 1/87			Long term growth %
	1/29	1/22	Jan	1/29	Jan		Jan
# of estimates	15		15	14	14		7
# revised upward	0	3	2	0	3		
# revised downward	1	0	1	0	0		
Mean estimate	1.17	1.20	1.15	1.15	1.65	1.65	30.40
% change in mean			0.00				
Median estimate	1.16	1.20	1.15	1.50	1.66	1.67	30.00
Highest estimate	1.20		1.20		1.75	1.75	40.00
Lowest estimate	1.10		1.10		1.55	1.55	24.00
Coeff of variation %	2.56		2.61			3.61	18.42
Naive estimate	1.22		1.22		1.94	1.94	
Implied P/E ratio	28.85		27.50		20.46	19.05	

Key: CR = to continue or ? for explanation of report terms.

The left half of the report indicates current fiscal year estimates and how they have been revised during the past month. The right half shows estimates for the following fiscal year, revisions during the past month and the projected growth rate for earnings per share.

The implied price/earnings ratio at the bottom of the report indicates the multiple which would have to be applied to estimated earnings to sustain the current stock price.

The Financial Statements

If you had done all the online research I've suggested up to this point, it would have cost you about $15 in surcharges. If you still believe the company is a solid investment candidate, then it's time to take a hard look at the financial statements. On CompuServe, a set of financial statements costs $3 to $8.

There are several questions you can ask without being an expert in financial analysis. For example, is research and development amortized? What would have happened to earnings if research and development had been expensed? Is there a convertible debt or equity that represents a potential dilution of earnings per share? Is the company engaging in a stock buy-back program to keep earnings per share high?

You'll also want to know if the company is funding its day-to-day operations with profits or if it is borrowing or perhaps selling assets to get funds. Suppose the company is leveraged more than most. Then, an upturn in that particular industry might not be as beneficial to the company.

What about growth? How fast has the company grown? Has its growth been smooth and are margins growing more quickly than revenues?

Screening

An issue screening product may be helpful in finding issues with similar performance. For example, you might want to see if other issues of a similar size with like prices and betas sell at approximately the same price/earnings ratio.

After identifying the type of security and markets you want to screen on CompuServe's main stock screening menu, you may use a combination of these criteria to pinpoint candidates. This service is also useful for picking bonds with specific maturity dates and yield targets.

Scott Clyde is manager of financial products for the CompuServe Information Service.

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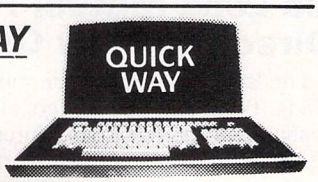

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Laura Berger, NFLMA: "The idea of investing without paying sales commissions or having to deal with a stockbroker is very appealing to both young and mature investors."

No-Load Mutual Fund Directory Now Online

The latest information on mutual funds, IRAs and tax shelters is now available in the No-Load Mutual Fund Association's online directory on the CompuServe Information Service (GO NOLOAD).

Monthly updates provide current information on 370 no-load and low-load mutual funds. According to CompuServe product manager Scott Clyde, subscribers can search for fund information four ways: by name, ticker symbol, fund objective or fund manager.

Each fund name provides three screens of information including a one-paragraph narrative on the overall objective of the fund and a brief description of the elements of the trading strategy. If you want further information, an online message will be forwarded to the fund specified and an information kit will be sent to you in the mail. Other features include fund size, the year it was first offered, purchase requirements, services provided, redemption procedures, and address and phone number.

"Right now, if you were to decide it's time to look at mutual funds, you'd have to refer to special issues of selected financial magazines and annual directories, some of which are available in bookstores, to search out the sources that offer information. Then, you'd need to contact someone at each fund to request a prospectus," says Clyde. "We think our medium is an ideal one for streamlining this process. It's closer to one-stop shopping than anything that's been available until now."

MicroQuote II contains the daily net asset values (prices) on mutual funds as far back as 1973, so that with the historical performance information available in MicroQuote and in the No-Load Mutual Fund database, people can go a long way toward making a decision, according to Clyde.

"The ability to get an overview of the fund, along with access to daily historical performance for the past 12 years, should provide a great deal of assistance to anyone looking to make an investment or shopping for an IRA," he says.

Users of the No-Load Mutual Fund database may be interested in a software program called *The Mutual Fund Investor* that allows you to directly compare any fund with any other fund to see which performed better, helping you to answer the question, "In which mutual fund should I invest?" The program helps you organize the watching or monitoring of funds that interest you. It can automatically retrieve data from financial products on the CompuServe Information Service and then let you use the data to plot graphs to aid in making decisions.

Information on the database is provided by the No-Load Mutual Fund Association (NLMFA), a national, nonprofit organization established in 1971 to broaden public awareness and understanding of no-load mutual funds. Association membership includes funds from 90 different management companies, all of which will be featured online. According to NLMFA Executive Director Laura J. Berger, you needn't be a sophisticated investor to profit from this fact-packed database.

"No-load mutual funds have experienced explosive growth in 1985," says Berger. "And that's partly because the idea of investing without paying sales commissions or having to deal with a stockbroker is very appealing to both young and mature investors. Having 24-hour online access to no-load information will make these investments even more attractive."

Berger offers the following definitions to help database browsers who are "just looking" understand the basics before logging on:

- **A Mutual Fund** is a company that pools the money of its shareholders to invest in a diversified portfolio of securities.

Investments may include stocks, bonds, money market instruments, or a combination of these investments.

- **Load** is the term for the sales charges of commission. Load funds carry commissions of up to 8.5 percent.
- **No-Load** funds are commission-free, liquid investment vehicles that provide professional management and portfolio diversification to suit individual needs.
- **All Mutual Funds**, whether load or no-load, charge management fees of between one-half of one percent and one percent of monies invested.

"As in any investment, the performance of no-load funds is never guaranteed," Berger cautions. "But these funds do spread your investment risk among a range of securities. Every mutual fund pursues specified investment objectives, such as growth of capital, safety of principal, current income or tax-exempt income. Careful investors will define their financial goals and then pool their assets with those having similar goals."

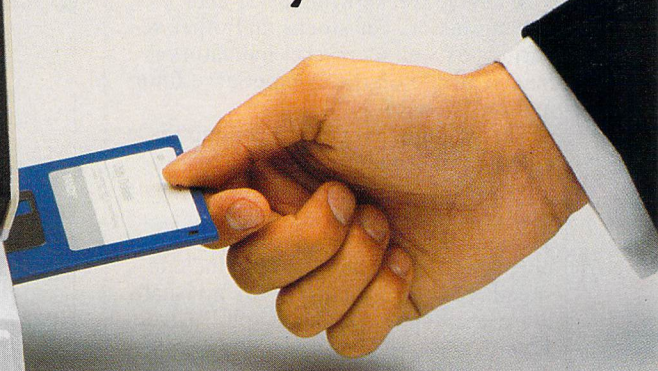
Berger says the latest figures on no-load funds show 1985 was an outstanding year for no-load mutual fund industry: fund assets rose 17.8 percent in the second quarter of 1985 to a record $71.5 billion from $60.7 billion three months earlier, and the number of shareholder accounts grew 34 percent between April 1 and June 30, 1985 to a record 7.1 million.

The popularity of no-load investments is growing, Berger explains, because declining interest rates make mortgage-backed securities funds, high-yield corporate and municipal bond funds and other high-yielding no-load products profitable alternatives to bank CDs and other money market investment vehicles.

Among the nearly two dozen advantages the NLMFA enumerates for investing in no-load funds are: diversification, professional management, liquidity, variety and personal service with no commission fee. Berger elaborates on another feature — convenience. "You own just one security, rather than several," she explains. "Yet you still enjoy the benefits of a diversified portfolio and receive a wide range of shareholder services. Whether you're a new or experienced investor, the convenience of no-load investments is a major advantage."

— Carole Houze Gerber

The new disk-based Tandy 600.



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Financial Pricing Program Graphics:

Colorful And Fast

A new graph showing price and volume history for stocks and other securities as well as market indicators is now available on the CompuServe Information Service.

The graphics program is unique to videotex information services, according to Scott Clyde, CompuServe's manager of financial services and Gary Yeauger, a CompuServe graphics support specialist. Its advantages include speed, color and quality. "It's a visually more exciting and faster graph," Clyde says.

At 1200 baud, it takes less than a minute to paint the screen in brushstrokes to create the graph. Because of the quickness involved, it's an easy way to "take a picture" of a stock issue, and it is especially good for a person who doesn't have financial modeling software or who is just casually interested in the issue, according to Clyde.

"Price/volume charts are the traditional way to visually analyze stock price movements over time," according to Clyde. "The high, low and closing prices are presented on the top two-thirds of the screen with corresponding volumes displayed in a separate graph underneath."

This new offering includes several features not previously available on graphs on the CompuServe Information Service, such as varying presentations for stocks, bonds, options, mutual funds and market indices.

A graphic alternative to CompuServe's pricing program, Multiple Days/One Issue, the new graphics program asks for an issue. When you enter a ticker, it determines what kind of issue it is and does a graph based on the best presentation of whatever is available.

It can work from any ticker symbol to get to the right kind of chart. For example, some issues such as no-load mutual funds don't have highs and lows — just one price per day. Therefore, a mutual fund graph looks different than a typical stock graph.

Subscribers can look at any time period from 15 days through 70 months in length on data that goes as far back as 1973. The user defines the date range, and this makes the product more useful for historical analysis.

"To further increase the utility of each graph, we present key information on the current status of the security along with the graph," says Clyde. "For stocks, we show the latest price, earnings per share, price/earnings ratio, indicated annual dividend, current yield, beta and exchange."

Once you have the needed information, you can go to other financial services on the CompuServe Information Service, such as Standard & Poor's or Disclosure II, for more information or you can download prices to your personal computer and do a more detailed analysis. There is a $1 surcharge per graph.

To do this kind of marketing analysis, you need to have software that has high-resolution graphics capability and a computer equipped with a graphics monitor. CompuServe's VIDTEX 2.0 (and above) with run-length-encoded graphics is capable of displaying this new chart.

In the near future, Professional Connection 3.0 software will be available. This new version will allow users to view NAPLPS graphics if they are using an IBM PC or IBM-compatible personal computer equipped with a color monitor and color graphics board or other NAPLPS decoder.

Other compatible NAPLPS devices that can display these graphics include the Electrohome EGT-100, AT&T Sceptre, Norpak Mark 5 and 6, Sony VDX series and many microcomputer software NAPLPS emulators.

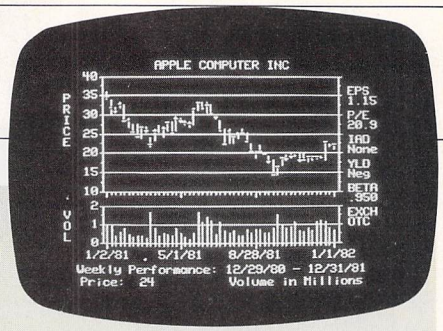
By using any NAPLPS device, subscribers can get slide-like graphics in up to six colors — blue, green, white, red, gold and dark gray. When accessing the graphics program with VIDTEX, charts appear in two colors.

"The addition of graphics to the financial pricing program (when accessed with the upcoming Professional Connection 3.0) will offer a readability that is new to this medium (videotex)," Clyde says.

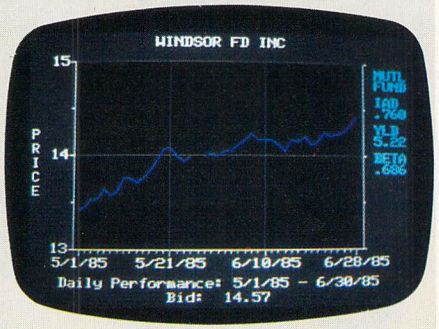
Before the new graphics program came online, two other, somewhat limited graphs were available on the CompuServe Information Service. VIDPLOT showed information by days, weeks or months in Prestel-style graphics, but it didn't give as much of a time period and the graphics were not as good as the new system. Users had to get the protocol capabilities themselves, and they needed a Telidon terminal to receive the charts on the other program, TELPLOT.

To quickly review a stock's historical performance, type GO MQPVOL or GO MMM-8 from any prompt on the CompuServe Information Service.

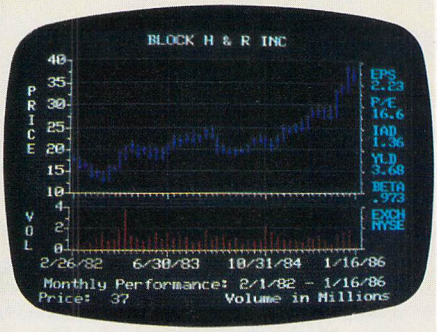
— Robert Loomis



This price/volume chart for Apple Computer Inc. is an example of the type of graph available to CompuServe users having VIDTEX 2.0 (and above) software with run-length-encoded graphics.



For users with a color monitor and software supporting NAPLPS graphics, the pricing program automatically selects the appropriate display of the information. The Windsor Fund is a mutual fund so the program selected this format rather than a high/low/close format.



For H&R Block stock, the program automatically created a graph showing the high, low and closing prices as well as the volume of shares traded. Users need to have a color monitor and NAPLPS capability to display this type of graph.

For More Business Information

To obtain more information about CompuServe Business Information Service products mentioned in the cover story and in the business section of *Online Today*, contact the CompuServe branch sales office nearest you:

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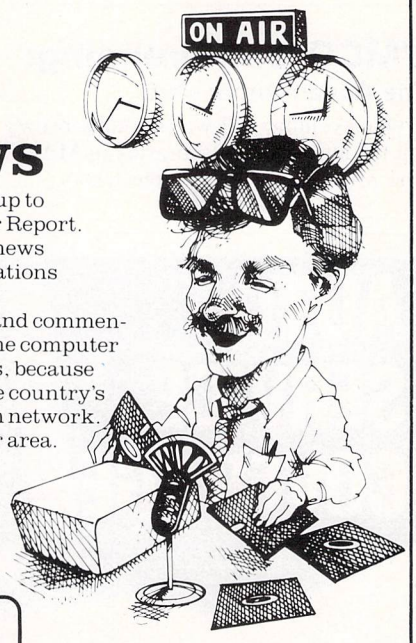

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KBEA-AM
1480 kHz
KY, Paducah
WKYX-AM
570 kHz
MD, Baltimore
WITH-AM
1230 kHz
MD, Hagerstown
WHAG-AM
1410 kHz
NC, Charlotte
WGSP-AM
1310 kHz
NC, Raleigh
WPTF-AM
680 kHz
NH, Keene
WKNE-AM
1290 kHz
NY, Albany
WQBK-AM
1300 kHz
NY, Ellenville
WELV-FM
99.3 mHz
OH, Cincinnati
WNOP-AM
740 kHz
OH, Cleveland
WWWE-AM
1100 kHz
OH, Columbus
WCOL-AM
1230 kHz
PA, Philadelphia
WIP-AM
610 kHz
PA, Pittsburgh
WMBA-AM
1460 kHz
PA, Wilkes Barre
WKRZ-AM
1340 kHz
SC, Charleston
WKCN-AM
910 kHz
TX, Dallas
KZEN-FM
97.9 mHz
TX, Houston
KLEF-FM
94.5 mHz
TX, San Antonio
KRNN-AM
930 kHz
UT, Salt Lake City
KLO-AM
1430 kHz
VA, Norfolk
WNOR-AM
1230 kHz
WNOR-FM
98.7 mHz
VA, Richmond
WRVA-AM
1140 kHz

VMCO Conferencing:
The Added Dimension

One evening, as I was casually browsing through the data libraries in MAUG (the Micronetworked Apple Users Group) on CompuServe, I stumbled across some unusual files in the Telecommunications area. They were "face" files . . . from users who had uploaded their "faces."

But these were more than mere digitized photos. Each "face" could laugh, cry, show surprise — these faces talked. Literally. I had discovered VMCO, the Visual/Vocal MAUG Conferencing Utility. And conferencing on CompuServe took on a whole new dimension.

VMCO is a utility for Macintosh users that lets them see other users' "faces" and hear their "voices" while in the conference mode in MAUG. Taking advantage of the high-resolution graphics and speech synthesis capabilities of the Macintosh, VMCO allows participants to design their own animated VMCO image — or "face," in VMCO jargon. Nine different facial expressions are available (normal, grinning, laughing, surprised, angered, asleep, sad, indisposed, or calling for attention), and both the pitch and speed of the synthesized voice may be adjusted.

It's all the work of 33-year-old California attorney Bob Perez, but he doesn't take credit for the original idea. "I wrote VMCO after seeing some of the software that Harry Chesley had written," says Perez. "Harry's a San Francisco programmer who runs a BBS and publishes *MacDeveloper*. He had the original idea for an audio/visual conferencing program, but never seemed to have the time to implement the idea here on CompuServe. I had seen some of his work with the Macintosh speech synthesizer and was appropriately awed. So in August, when I had two weeks' vacation, I sat down and wrote the thing."

Perez describes VMCO as conferencing in a "Twilight Zone setting." But sometimes, the atmosphere more closely resembles "The Gong Show." While some users may attempt to represent themselves as faithfully as they can, many choose a lighter touch. For instance, one participant uses characters of the comic strip "Bloom County" for his "faces." And nearly all use some symbol for the "indisposed face." And then there are the sound effects — ranging from a loud buzzer to a window blind flapping — inserted frequently by VMCO participants whenever the urge strikes.

In spite of the short time it took Perez to create it, VMCO is an intricate utility that may take some new users a while to figure out. In the first place, it's not as simple as merely downloading VMCO. You also need to download MacinTalk, an Exception Dictionary (corrects faulty pronunciation of certain words and contains some sound effects), a resource editor (allows you to create your own face), a face file, a desk accessory (allows you

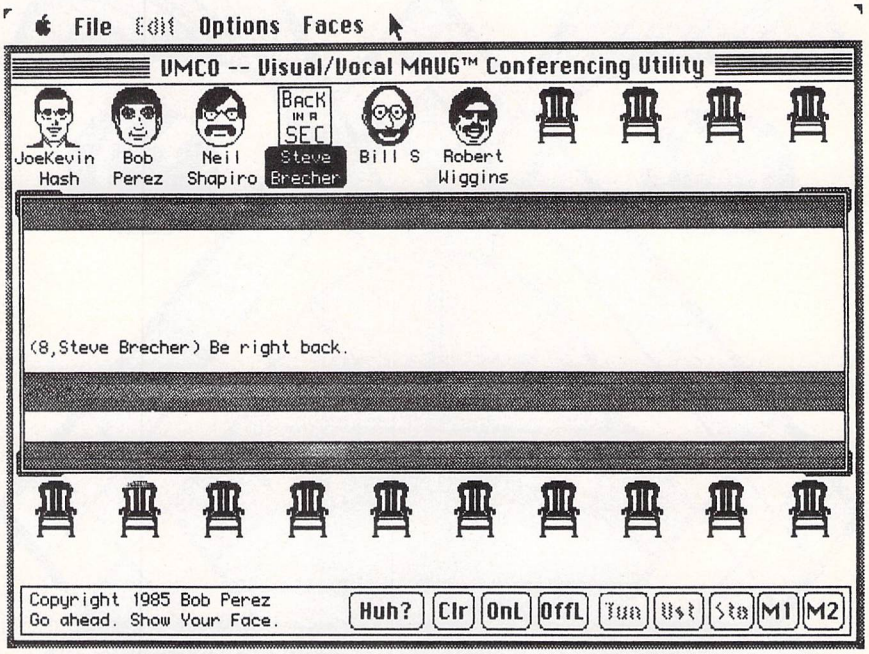
GO EBB or circle 16 on the Reader Service Form.

to retrieve various face files), and an optional Exception Editor (allows you to correct faulty pronunciations of special words yourself).

In addition, the utility requires a Macintosh with 512K of memory. An external disk drive is useful but not absolutely necessary. The details are carefully documented in VMCO.DOC in the Telecommunications Data Library of the Macintosh User Group (MACUS) in MAUG. All of the applications and utilities may be found either in MACUS or the Mac Developers Forum in MAUG.

Channel 8 is the official VMCO channel and 10:30 p.m. EST is the official "calling hour" for those interested in setting up visual/vocal MAUG Conferences with VMCO.

To date, about 150 people have managed to meet these prerequisites and upload their "faces." And of course, any one of them will be more than happy to help by answering messages posted in MAUG by confused newcomers. What does all this mean for the future of telecommunications? While this certainly isn't the futuristic "picture phone" touted in the late 1960s (recall the "Bell" picture phone in Kubrick's *2001*), many VMCO users perceive similarities. Perez recalls, "The earliest transcripts of VMCO sessions reflect comments like, 'making communications history,' and 'the communications future.' Whether these statements are true or not, there's no mistake that many people have felt this way using VMCO."



Through VMCO, users can see each other's "faces" while in conference.

In addition to the Macintosh Users Forum, a group for Apple Macintosh users, and the Macintosh Developers Forum, a forum for communications among software developers for the Macintosh, MAUG includes the Apple II and Apple III Forum for users of these types of Apple computers. All three forums within MAUG provide conferencing capabilities, message boards and data libraries with public domain software and informational files. (The Apple II/Apple III Forum does not contain the VMCO files.) To access the Macintosh Users Forum, type GO MACUS at any prompt on the CompuServe Information Service. To enter the Macintosh Developers Forum, type GO MACDEV. GO APPLEII or GO APPLEIII will take you to the Apple II/Apple III Forum on MAUG.

— Joe Kevin Hash

How to Show Your Face

First, you'll need a 512K Macintosh (VMCO will not work on a 128K Mac). The following files may be downloaded from Data Library 8 of the Macintosh Users Group in MAUG (GO MACUS).

Required Files

VMCO.BIN — the VMCO utility

MACTAL.BIN — the MacinTalk speech synthesizer

Recommended Files

VMCOX.BIN — This is an "exception file" designed to help MacinTalk pronounce correctly words commonly used in the conference mode. This file also includes many sound effects used by "veteran" VMCO users.

VMCO.DOC — Bob Perez's more detailed instructions for the VMCO utility, complete with illustrations.

VMCODA.BIN — This is "FaceIt," a desk accessory used to view VMCO face files.

Optional Files

VMCO.TXT — a fast-start VMCO primer for those who don't require detailed instructions (written by Bob Perez).

FACES1.PIT through **FACES8.PIT** — These are files containing all of the faces of VMCO users.

PACKIT.BIN — "PackIt" is an application used to "unpack" or split-up the faces in FACES1.PIT and other face files.

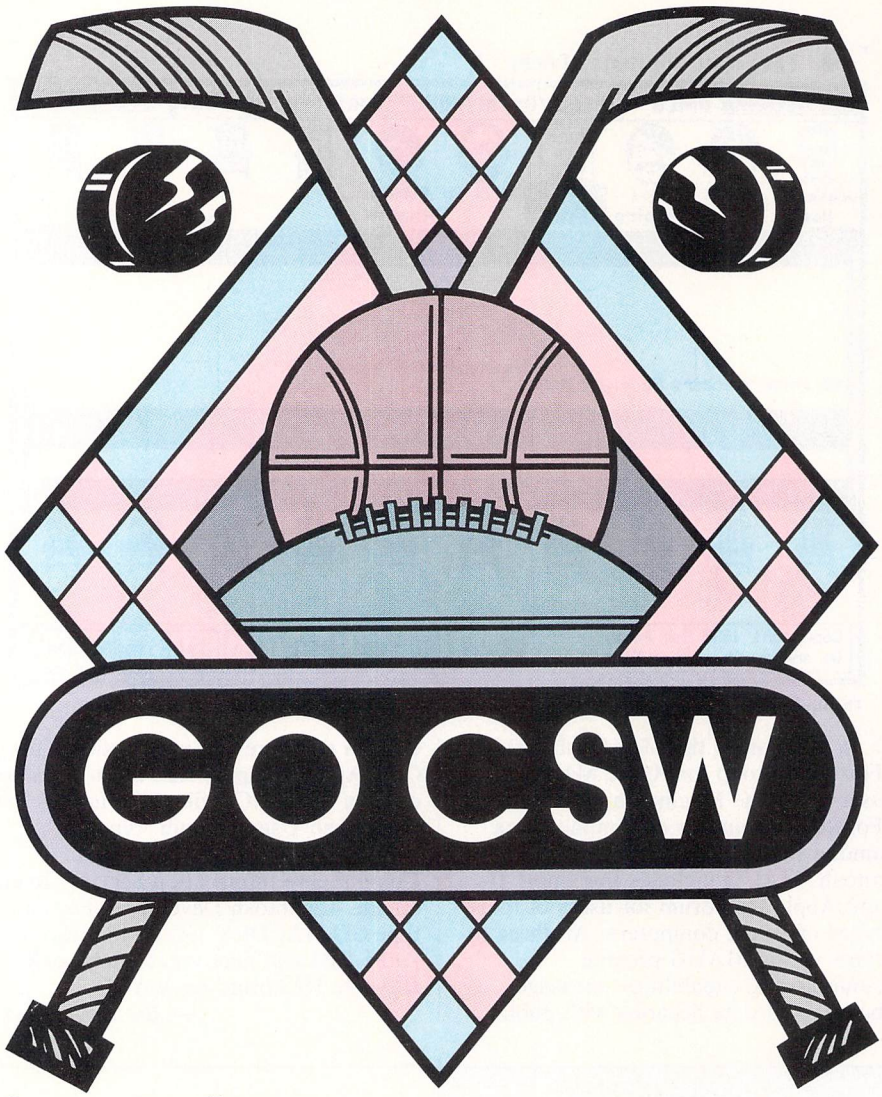
It takes some time to download all of these files, so you may want to use only the following files for starters: VMCO.BIN, MACTAL.BIN, VMCOX.BIN and FACES1.PIT (containing all the forum administrators' faces, including Bob Perez's). If you don't have the "PackIt" application, you'll also need PACKIT.BIN to "unpack" FACES1.PIT.

— J.K.H.

What's Going On???

If you want to know what's going on around CompuServe, check into the *Electronic Edition* of *Online Today*. Here you'll find constantly revised news for and about the CompuServe community. GO OLT from any prompt and choose "CompuServe Update" from the main menu.

ONLINE TODAY
ELECTRONIC EDITION



Computer Sports World Available On CompuServe

Sports enthusiasts and occasional fans alike can get the latest in scores, schedules, standings, matchups and statistics through a new service on CompuServe. Computer Sports World, a Las Vegas-based subsidiary of Chronicle Information Services, is the information provider with a "line" on everything from football to basketball to hockey.

An elite database of sports and racing files, CSW gives subscribers up-to-date, selected information that previously took hours or even days days to compile. NFL, NCAA and CFL football; NBA and NCAA basketball; and NHL hockey activities are thoroughly documented. Comprehensive lists of times and places of upcoming games; seasonal scores; and conference, division, and total standings are included, along with college bowl schedules and "today (present)/tomorrow (next)" matchups for basketball.

"With this service, users can determine winners and estimate scores more scientifically, along with increasing their knowledge of sports and statistics," notes Robin Cobbey, president of CSW. "We go beyond simple statistics and give them the means to evaluate a sporting event. Our data helps in weighing the factors involved in one team beating another." Elements in the database such as grass vs. Astroturf, favored team vs. underdog, and "away" game vs. "home" game help take the guesswork out of sports forecasting.

Each sport has its own Las Vegas Line. A consensus monitored by and originating from Las Vegas, the line predicts what team is favored and by how many points (point spread). "Because new factors constantly arise — injuries, weather, changes in public favoritism toward a given team — numbers on a line set on Monday may be different from those a few days closer to the game," explains Darryl Martin, Director of CSW Operations. CompuServe users have the advantage of checking the Las Vegas Line as often as desired.

Novices to the jargon of matchups and statistics can access detailed explanations and examples so data that may at first seem confusing quickly becomes clear. Through a feedback section, CSW welcomes subscriber comments and suggestions. "Feedback is very important to us," emphasizes Martin. "For example, users told us they wanted hockey information so we set up a CompuServe database."

To access Computer Sports World, type GO CSW at any prompt on the CompuServe Information Service.

— Sandra Gurvis

Travelshopper Enhances Fares

Travelshopper now includes more than 6 million fares for every airline in the world. Fares are shown in order of lowest to highest, regardless of airline. Domestic and international fares are updated daily for accuracy.

The rules pertaining to these fares are also more complete than they were previously. Restrictions such as blackout dates, seasonal requirements, minimum and maximum stay, and booking codes are included.

Once you have booked into Travelshopper the flight and fare you prefer, you can send and receive electronic messages with your travel agent. This capability allows you to request hotel information, rental cars, airline seat assignments and other amenities.

To access Travelshopper, type GO TWA at any prompt on the CompuServe Information Service.

Changing Your Password

The CompuServe Information Service urges its customers to change their password(s) at least once a month.

The password should be a minimum of eight characters composed of two unrelated words separated by a symbol, for example: HOUSE*MAGNET.

To find out how to change your password, type GO PASSWORD.

Of Oscars, Taxes and the Easter Bunny

March is Oscar time, and film fans will find many of their old favorites online at The Mall. See Magic Castle Video (GO MV) for award-winning classics, including "Amadeus," "Inherit the Wind" and "The Killing Fields." Visit French Films On Video (GO FF) for foreign favorites such as "The Discreet Charm of the Bourgeoisie," "Jules & Jim," and "Cyrano de Bergerac." At Waldenbooks (GO WB) you'll find still more all-time classics like "Citizen Kane," "Gone With the Wind," and "National Velvet." Waldenbooks also has books for movie buffs such as David O. Selznick's *Hollywood, Encyclopedia of Movie Stars* and *Hollywood Musicals*.

March is also tax preparation time. See Equitable (GO EL) for online information on different Equi-Vest IRA and Keogh options. A unique, free, no-obligation service at Equitable's Mall store is "Ask The On-Line Agent." The Equitable Agent replies electronically via EasyPlex to your questions. Now is the time to inquire about tax shelters, IRAs and more. Software Discounters Of America (GO SDA) has two special tax preparation packages this year. Order "Swiftax for 1985" by Timeworks, an easy-to-use, menu-driven program that will enable you to prepare and complete your Federal income tax returns; yet, it requires no prior knowledge of computers or accounting. Or select "J.K. Laser's *Your Income Tax* 1985," by Simon & Schuster. The program calculates 28 IRS forms and schedules, and can help you plan the best strategy for your needs. Computer Express (GO CE) also specializes in tax-time software. This Mall store features "Tax Advantage" from Arrays/Continental, an easy-to-use program that does even complex operations like income averaging, and "Tax Manager" from Micro Lab. All programs are, of course, tax deductible. And don't forget McGraw-Hill (GO MH) for a wide selection of business, investment and tax titles.

This year Easter and Passover arrive early, too. See Morrows of Florida (GO NUT) for chocolate Easter eggs and more. Simon David (GO SIM) has Virginia hams, smoked salmon and gourmet gift baskets and Fifth Avenue Shopper (GO FTH) will send Easter plants and other festive arrangements via major wire services. See The Growers Store (GO SDG) for gift packs of dried fruits and visit Florida Fruit Shippers (GO FFS) for the best in fresh fruit from the sunshine state. Finally, if there's a child you'd like to surprise, take a trip to Waldenbooks (GO WB) and order *Pat the Bunny* or one of dozens of other classic children's titles.

AUTO SHOP

ATB	American Tire Buyers
BU	Buick
AMS	Car Care Co.

BOOK BAZAAR

BB	Bantam Books
DII	Christian Book Store
MER	Mercury House
MH	McGraw-Hill, Inc.
RP	Rodale Press
WB	Waldenbooks Co., Inc.

CAREER CENTER

TDG	Teledata*Guide
WS	Wayside Systems

FINANCIAL MART

CN	Colonial National Bank
EL	Equitable Life
MU	Max Ule & Co.
MET	Metropolitan Life
SI	Select Information Exchange

GIFT CORNER

FFS	Florida Fruit Shippers
FTH	Fifth Avenue Shopper
HH	Hobbit Hole/Wyan. Wines
RF	International Fur Wholesalers
LNX	Lenox of Fairfield
SEA	Lobster Market
MJ	Milkins Jewelers
MOM	Mom's Wish-A-Gift
NUT	Morrow's Nut House
SDG	The Grower's Store
TG	Topgar Tobaccos
SIM	Simon David

LEISURE CENTER

ATH	Athlete's Outfitters
BP	Barracuda Sports
BS	Berry Scuba Co.
FF	French Films on Video
GG	The Game Getters, Inc.
HF	Carolina Health & Fitness
MV	Magic Castle Video
RR	Rin Robyn Pool & Patio
SB	Stark Bro's Nursery

TRAVEL AGENCY

AF	Air France
AA	American Airlines
HS	The Homestead
WL	Worldwide Property Guide

MERCHANDISE MART

AC	Landmark Contracts
APC	Apparel Concepts for Men
AXM	American Express
BF	Birkenstock Footwear
CC	Cosmic Concepts
EE	Electronics Experts
EGS	Electronic Gadget Store
ELM	Electronics Mart
GDX	Genovese Direct
FP	Just For Fun T-Shirts
KO	Eastman Kodak Co.
PB	Pocklington Bros.
SR	Sears, Roebuck & Co.
VM	VitaMenagerie
MAO	Music Alley Online

NEWSSTAND

CBS	CBS Magazines
CW	CW Communications
DJ	Dow Jones & Co.
ME	EBSCO Magazine Entree
RP	Rodale Press
US	USA Today

ONLINE CONNECTION

EF	E.F. Hutton
GLO	Globalink
HB	Harvard Business Review
NN	NewsNet
OA	Official Airline Guides
VL	Videolog Electronics

PARK PLACE

BL	Bloomingdale's By Mail
TIF	Tiffany & Co.

PERSONAL COMPUTER STORE

BI	Borland International
CE	Computer Express
CPG	CompuGame
DSK	1-800-Floppys
GE	Grolier Software
HTH	The Heath Company
MM	Marymac Industries Inc.
MC	MCTel Telecommunications
MO	Misco Computer Supplies
SDA	Software Discounters of America
SR	Sears, Roebuck & Co.

RECORD EMPORIUM

RC	RCA Direct Marketing
RW	Record World

Public Officials Directory Live

The Directory of Public Officials provides easy access to names and mailing addresses of federal and state officials. The federal section includes listings of officials for the White House, cabinet-level departments and prominent agencies, commissions and bureaus operating within — and independent of — the various government departments. Listings for the members of the U.S. Senate and House of Representatives and the U.S. Supreme Court are also included. The state section includes state governors and major officials. GO DPO

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2100 to 3099 Shares	7 ¢ per sh
3100 Shares or More	5 ¢ per sh

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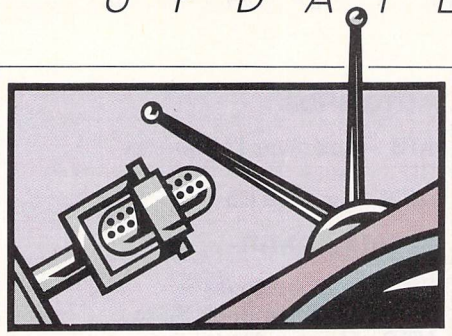
GO EBB or circle 17 on the Reader Service Form.



Broadcast Forum Open

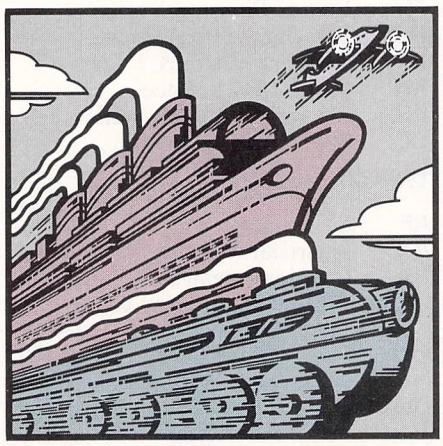
The Broadcast Professional Forum is designed for professionals working in radio and television production and promotion. Broadcasting techniques and advancements are discussed on the message board, and the forum has weekly conferences at 10 p.m. EST Tuesdays and 12:01 a.m. Wednesdays. The data libraries contain programs related to communications engineering. GO BPFORUM

Journalism Forum Available

Professional journalists now have a forum on the CompuServe Information Service. Designed by broadcast and print journalists, the Journalism Forum offers a message area, weekly conferences and Data Libraries including a jobs file, stringers' index, equipment exchange and a commentary section. GO JFORUM

Microsearch Database Offered

Microsearch, a comprehensive database of more than 20,000 abstracts about personal computers, software and related products, is now available on CompuServe. Abstracts include product reviews from more than 200 industry periodicals, as well as product literature from more than 4,500 manufacturers and software publishers. GO MSH



ETC Offers Travel Newsletter

The Educational Travel Connection now has an electronic travel newsletter containing travel articles, the latest information on airfares, contests, reviews of programs and in-depth articles on travel and destinations. Currency exchange information and weather charts as well as a resource section on travel books are included. The bi-weekly newsletter is offered on a subscription basis. GO ETC

National Tourism Citilog Live

Planning a weekend getaway, business trip or vacation? The National Tourism Citilog provides information on 16 of the most popular cities in the United States. You can find information on entertainment, museums, places of interest, special events and sports. Addresses, telephone numbers, dates, times and ticket prices are included to make travel planning easier. Additional cities will be added in the future. GO CITIES

Apples Online Available

Apples Online offers hardware and software reviews, user group news items and an introduction to CompuServe's MAUG forums for Apple computer users. Articles and meeting minutes from the national Washington Apple Pi Users' Group as well as material from the Berkeley, Calif., Macintosh Users' Group are available online. Harry Chesley's *MacDeveloper* Magazine and *The Apple III Magazine* are offered through Apples Online. The service also includes online transcripts from conferences in the three MAUG forums and help files. GO AOL

YGI! Has New Prizes

The 3-C Network, producer of *You Guessed It!*, an interactive, multi-player online trivia game, has added more *YGI!* sponsors and prizes. New prizes include a JVC stereo tuner, Walt Disney World passes, a Fox Radar Detector and *Family Computing* subscriptions. You may check weekly for additions to the Rewards Trailer. GO YGI

Watch for Halley's Comet With CompuServe

To celebrate the return of Halley's Comet — not seen in the vicinity of Earth since 1910 — CompuServe has added an online source of educational information and entertainment, Comet Watch '86, available through April 30, 1986.

CompuServe's Comet Watch '86 is useful to students, educators, writers and anyone interested in science. "Also, because the return of Halley's Comet is a once-in-a-lifetime experience, the service is of general interest," says Barbara Hoffman, CompuServe product promotion manager.

Several of CompuServe's online forums are involved in the Halley's Comet online festivities. The Space, Science Education and Travel Forums have sponsored online conferences on topics related to Halley's Comet, and two more conferences are upcoming. On March 23, the Space Forum will have an online discussion of the observations made of Halley's Comet to date. On April 22, the National Issues Forum will have a conference about the historical, sociological and inter-cultural issues related to the periodic return of Halley's Comet. For more details and conference times, refer to the "Comet Contests/Conferences" section of the Comet Watch '86 database.

Intergenerational awareness is the theme of the Halley's Comet Essay Contest in which participants may describe life in the United States in 1910, 1986 or 2061. Entries should be submitted electronically by March 15, 1986 and winners will be announced in April. Winning entries will be placed in the official Halley's Comet time capsule, to be installed on Memorial Day in Vincentown, N.J. and retrieved in 2061. Contest rules are available in the Comet Watch '86 database and in the three CompuServe forums sponsoring the contest: the Science Fiction and Fantasy Forum (GO SCIFI), the Students Forum (GO STUFO) and the Writers and Editors Forum (GO WESIG).

For those who wish to test their knowledge of comet lore and Halley facts, Cosmic Concepts (GO CC) is hosting the Comet Trivia Contest complete with prizes. The second four-week series of trivia games starts in March, with 10 new questions each week. Players win points for having the earliest entries with correct answers. During the last week in February and the last week in March, the Comet Trivia Contest will have tie-breaker bonus questions. Winners will be announced each week, with one grand prize winner for February and one for March. To get complete rules, select item 2 from the Comet Watch '86 main menu.

Through the Halley's Comet Watch Newsletter, CompuServe subscribers will find reports from Halley's Comet organizations, recollections of Halley "two-timers" — those who saw the comet in 1910 and are watching it this year, descriptions of historical sites related to Halley's Comet and stories for children. The newsletter is available in print by subscription and online in the Comet Watch '86 database.

Anyone planning to travel to the Caribbean or another location for viewing Halley's Comet can access the HalleyCat Travel Guide from the main menu for a listing of major Halley's Comet tours and cruises. Contact names for the cruise lines and travel agencies are included. To find out what locations are best for viewing the comet during each stage of its path, select "Observational Highlights" under the introductory section on the main menu. The "Worldwide Halley Events" section, also under the introduction, includes information about planetarium events.

While educational information is in nearly every area of Comet Watch '86, there is a special section with a reading list and tips for educators. Current comet-related books as well as reissues of books first published in 1910 are listed by category, title, author and publisher. Science, history, humor and children's books are among the categories. Teachers will find online classroom curriculum outlines and a list of educational items available in the Comet Memorabilia Shop.

CompuServe subscribers can order comet-related books, educational posters, subscriptions to the Halley's Comet Newsletter and more in the Comet Memorabilia Shop. Souvenir T-shirts and visors as well as novelty items are also available. To enter the shop, select item 4 from the Comet Watch '86 main menu.

Subscribers can access the Comet Watch '86 database by typing GO HALLEY at any prompt on the CompuServe Information Service.

— Mary Mitchell

Answers from Customer Service

Q: What services does Travelshopper provide in addition to offering airline flight schedules, fares and reservations?

A: You can use Travelshopper not only to obtain schedules and fares for virtually all airlines worldwide and to make airline reservations but also to take advantage of other services.

In the Message Center, you and your travel agent can communicate electronically to arrange special services, such as car rentals. You can look up foreign currency exchange rates and conversions, check the local times in other cities worldwide, find out the air mileage between two cities and even code/decode airline and city codes.

To access Travelshopper, type GO TWA at any prompt on the CompuServe Information Service. To use the special features, type "O" for "Other Services" at the Travelshopper prompt. For a list of additional Travelshopper commands, select menu item 2 from the Travelshopper menu.

Q: I would like to use the Official Airline Guide Electronic Edition, but I do not know what commands to use. Can you give me a summary of the commands?

A: Here is a summary of the slashed commands used in the Official Airline Guide:

/H for hotel/motel displays
/I for help and information
/S for schedule displays
/F for fare displays
/M to return to the OAG main menu
/U for user comments and suggestions
/Q to exit from the Official Airline Guide.

Q: I am interested in vacation lodging. Where can I find this information?

A: CompuServe offers information on hotels in the A to Z Worldwide Hotels service (GO HOTELS). In addition, the Official Airline Guide (GO OAG) now offers a Hotel/Motel listing.

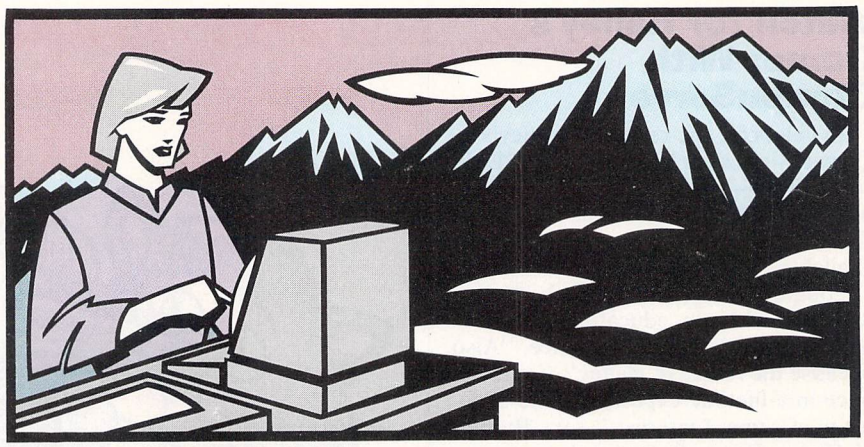
The Worldwide Exchange (GO WWX) is the place to go if you are interested in renting property, time-sharing a vacation condominium, or looking for a bed-and-breakfast lodge.

Q: Is there a service available on CompuServe that arranges visas and passports for trips to foreign countries?

A: Yes, the service is called Visa Advisors. Visa Advisors is currently the largest provider of Visa and passport information in the United States. The electronic edition of its publication, *VisaGuide*, is now available online and provides up-to-date information on foreign entry requirements. Visa Advisors advises the U.S. traveler about what type of documentation is required (i.e. proof of nationality, passport, tourist card, visa) and the procedure for actually obtaining the document.

Some details about Visa Advisors include:

- Free mailing service for visa forms and travel requirements
- Diplomatic corps of radio-equipped and bonded visa agents who personally deliver documents to each embassy
- Visa processing available to nationals of foreign countries who are traveling abroad
- Passport Processing — Travelers who require urgent passport processing do not have to worry. Same-day service is available for persons able to submit copies of their round-trip tickets. Visa Advisors facilitates the authentications of commercial and legal documents at the U.S. State Department, District of Columbia government, all embassies, and U.S.-Arab Chamber of Commerce. A complete list of fees for Visa Advisors is available online. To access Visa Advisors, type GO VISA from any prompt on the CompuServe Service.



Locating Apartments Worldwide

Several weeks ago, CompuServe was instrumental in helping my next-door neighbor solve a difficult problem. My neighbor, an employee of the United Nations, was on her way to Geneva for a two-month-long U.N. conference. She was anxious to find an apartment she could sublet there, and she spent weeks searching the international real-estate sections of several newspapers. In addition, she contacted real-estate brokers and asked acquaintances from the U.N. Still, nothing turned up.

One evening, a week before she had to depart, she explained the situation to me. I logged on to CompuServe and accessed Worldwide Exchange (GO WWX), where a variety of items, including apartments and condominiums are listed for sale, rent or exchange.

There were listings for apartments in Geneva. Each listing described the apartment's size, furnishings, approximate location, price per month to rent and telephone number for more information. I turned on my printer, produced a copy of the information and then dashed off to my neighbor's house.

She was grateful and somewhat amazed that I could obtain information like that so quickly, inexpensively and with so little effort — sitting in my own livingroom 4,000 miles away from Geneva. That's what CompuServe is all about.

Rhett Austell
Ridgewood, N.J.

Gift of Time

Online Today offers subscribers the chance to write a 200-word essay on how they use CompuServe's Information Service.

Your essay should be typed double-spaced. Send it to *Online Today*, CompuServe Incorporated, 5000 Arlington Centre Blvd., P.O. Box 20212, Columbus, OH 43220, or by an Email message to 70003,1661. Please include your full name, address and User ID number.

Should we use your column, you will receive 10 hours of standard service connect time (a $60 value) and a byline.

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Finally, there's a banking system that accommodates your lifestyle as effectively as it handles all your money.

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Access

A Pocket-sized Terminal For People On The Move

Melard Technologies Inc.
5 Westchester Plaza
Elmsford, NY 10523
914/592-3044

Computers: Access terminal.
Operating System: Menu-selectable user control.
Features: 49-key upper/lowercase ASCII alphanumeric typewriter keyboard with displayed lowercase, plus programmable function keys; 8-line by 40-character, 64 by 240 dot-matrix LCD screen; Bell 212A compatible 300-baud internal modem with acoustic coupler provided; non-volatile RAM (16K to 64K); 6-pin serial interface for connection to external modem, printer, and RS-232C peripherals.
Options: Plug-in memory (16K, 32K and 64K) cartridges.
Model Tested: Access pocket-sized computer and remote terminal; acoustic coupler with built-in 300-baud modem.
Prices: $900 with 64K memory and 300-baud modem; additional memory modules available at $85 for 16K, $150 for 32K and $350 for 64K.

Reviewed by Joe Farace

In *Bicentennial Man*, Arthur C. Clarke casually mentions a pocket-sized calculation/communications device that (it seems) everyone uses. Maybe he was inspired by Alan Kay's Dynabook concept, but I had a sense of déjà vu when I first saw Melard Technologies' compact Access terminal.

How small can a keyboard get and still be usable? I think Melard may have the answer. The terminal measures 8 1/4 by 3 3/4 by 1 7/8 inches and weighs just 24 ounces. That's a pound and a half! With its folding LCD screen, the terminal is similar to Tandy's Model 200 computer. It has an 8-line by 40-character screen, and the resolution is pretty good. Contrast is controlled by tilting the screen and by using a "SYM" key with up- and down-arrow keys. Users who don't dislike LCD screens won't have any difficulty reading the Access screen.

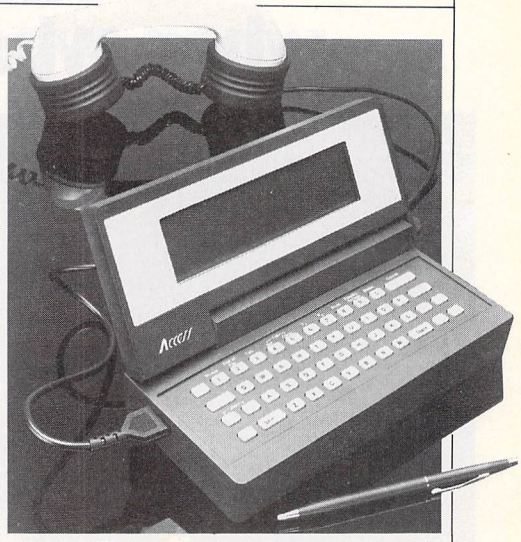
The keyboard isn't radically different from the standard QWERTY arrangement, but it did take some getting used to. The chiclet-style keys initially could lead to keying errors. To get uppercase, the shift key must be pressed first, released, then followed by the desired letter. I've used an Apple II word processing program that treats uppercase and lowercase the same way, so that bothered me for only a short time. In addition, the "Sym" key acts as a shift for all punctuation symbols. When I started using the terminal, I always hit the shift key by mistake for commas and slashes.

While online I used the back-arrow as a backspace and was surprised that it didn't work. The correct backspace is CONTROL-F2. While most terminals use the ASCII standard CONTROL-H, that combination doesn't work with Access. Coping with these variations in keyboard usage takes some mental gear-shifting until it becomes natural.

Power for the terminal is provided by either an AC adapter (included) or a flat non-rechargeable Polaroid battery. Each battery should provide enough energy for 10 hours of continuous use. However, these batteries can be hard to find, so users probably should order a few spares to back up the five that are included. The manual lists two places to obtain them: Melard and Polaroid. A built-in power saving feature turns off the terminal if it hasn't been used for five minutes.

Access has some computer-like characteristics. Rudimentary text editing and database capabilities are provided. When those features are combined with the interchangeable data storage modules, you'll hardly notice the lack of a disk drive. Furthermore, 80 columns can be scrolled upward into a 3K buffer, as well as sideways across the 40 column screen.

If the modules and built-in software are the best features, the acoustic coupler and modem are the worst. Because direct connection isn't built into the terminal body, automatic dialing capability isn't available. However, the ability to provide automatic logon macros is included. The acoustic cups are designed for what used to be called the Bell 500 telephone set, but fewer and fewer telephones (except pay phones) are using that design anymore. As a result, the cups may not fit a given handset perfectly, and they might have worked better if there was an elastic band to hold them firmly in place. The rubber cups also are a little too snug on some handsets, and it took me several tries to position them successfully.



Once past the obvious differences, I found that using Access is not much different from using any other terminal, with one big exception. I was sitting across the table from my wife while we both were writing letters. She was using the old-fashioned pen and paper method, while I was composing offline electronic mail. After a while she looked up with surprise and said, "That little machine doesn't make any noise at all!" It doesn't! Once online, it's hard to believe this little machine is really talking to a remote service like CompuServe.

The compact Access terminal obviously isn't for everybody. Someone used to a real keyboard such as found on laptop portables will need some time to adjust to the soft touch of this keyboard. You may have to wrestle with the acoustic coupler to get online the first time, but if you're patient, it will work. The terminal's tough, professional look, combined with a package that easily fits into my camera bag next to my Nikons, makes it a unique product. If you're on the go and need to keep in touch electronically, and if space is at a premium, Access is for you.

Joe Farace is a writer and photographer from Denver, Colo. He is a contributing editor of PhotoMethods *magazine and his reviews of Macintosh software will appear in an upcoming book from Arrays Inc.*

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Chiwriter:

An Inexpensive Scientific And Technical Word Processor

Horstmann Software Design
P.O. Box 4544
Ann Arbor, MI 48106
313/663-4049

Computers: IBM PC, PC-XT, and compatibles.
Operating Systems: PC-DOS or MS-DOS version 1.1 or higher.
Media: Requires at least one double-sided, double-density diskette drive.
Copy Protection: None.
Required Peripherals: IBM Color Graphics Adapter or compatible adapter (supports Compaq dual-mode display or, at extra cost, the Hercules Color Graphics Board); color or monochrome monitor (color display not used); supported printer including Epson MX-80 and compatibles, Epson LQ-1500, IBM Graphics Printer, IBM Proprinter, Okidata ML92 or ML192, and Itoh 8520 (Toshiba 1340 supported at extra cost).
Other Requirements: Minimum 256K RAM.
Optional Items: Additional diskette drives, hard disks or electronic disk; additional memory.
System used for test: 640K Compaq Deskpro (Model 2) with two diskette drives, 20MB IOMEGA Alpha-10 Cartridge Drive Subsystem (Bernoulli Box), Amdek Color 700 monitor, Epson MX-80 printer with Graftrax Plus; running IBM PC-DOS 2.10.
List Prices: $69.95; additional support for Hercules Color Graphics Board or Toshiba 1340 printer at $19.95 each.

Reviewed by Ernest E. Mau

Anyone who has worked with technical or scientific text knows how painful the experience is with conventional word processors not designed to handle complex mathematical equations, chemical formulas and similar needs. Special characters involved often require customized printer programs, while displaying or arranging them on screen so they print right on paper can be an exercise in frustration. The few special programs available to handle these materials typically carry high prices and are complex enough to confound many users. At best, a conventional word processor having several type styles or fonts still makes spacing and arrangement of those characters difficult.

Chiwriter is a low-cost program that greatly simplifies handling multiple type fonts, special characters and most technical or scientific writing needs. Although it has limitations, Chiwriter's combined text editing, printing and font-design capabilities should satisfy many users.

Chiwriter is a word processor and includes a cut-and-paste buffer, block manipulations, search-and-replace functions, paragraph reforming, word wrapping, multiple-level subscripts and superscripts, controllable line spacing, selectable right-margin justification and so on. It also puts 10 fonts at the user's fingertips, one for each of the F1 through F10 keys. These include Roman, symbol, italic, bold, small, Gothic, script, Greek and two mathematics sets. Tap a function key, and anything typed appears on screen and on paper in the chosen font. Mark a block containing a word, sentence, paragraph or more, then tap a function key, and all characters within that block immediately change to and redisplay in the new font.

The search or search-and-replace functions are font sensitive, so it's possible to find a word like "always" only in italics or to replace a word in Roman with the same or another word in Gothic. Search-and-replace is somewhat cumbersome in that it doesn't work globally so each consecutive occurrence is found and replaced by repetitive taps on a key. Also, each occurrence is replaced without verification, making it easy to replace a wrong occurrence inadvertently; this may be fixed in an early 1986 revision in which footnoting also is to be provided.

Building complex multi-line formulas, boxed tables or pictorials can be tricky at times but not so difficult or confusing as to baffle users. Even inexperienced users can become productive with Chiwriter within hours.

Chiwriter allows the importing of ASCII files from another word processor or a source like an online information service. A special ASCII import mode even softens returns except between paragraphs, but losses of subscripts, superscripts and similar formatting frills must be corrected by reediting. It also can output to almost-pure ASCII disk files, although graphics benefits are lost, and pages continue to be separated by form feeds.

Printing to paper allows three print qualities generated by draft, regular and slow options. Draft quality is fastest with its single pass per line but should be reserved for in-house use. Regular quality gives enhanced type usable in many applications but at a slower speed. The slow option is really slow, but typically makes four passes for every text line (with an Epson MX-80), provides dense inking, fills most spaces between dots and even loads its own specially enhanced printing fonts to assure optimum quality.

Chiwriter doesn't support proportional spacing. Right justification is achieved by inserting whole spaces between words. Since Chiwriter has no "soft hyphen" for breaking up words only when they fall at ends of lines, the appearance of justified text often is less than ideal. Switching justification off, saving the new default setting and using ragged margins probably would be preferable.

An included font designer allows altering any existing font or creating new fonts from scratch. It displays an enlarged character in a graphic grid so the user can move around the grid and turn individual dots on or off at will. It's surprisingly capable yet easy to use and provides an 8 by 10 "box" for screen characters, a 12 by 10 box for draft printing characters and a 12 by 20 box for "slow" printing characters.

Compatibility with supporting programs like spelling or style proofreaders is a stumbling block because of embedded controls, but programs tolerating embedded backslash combinations should work. The supplier recommends MicroSpell from Trigam Systems, but anyone feeling the need for various supporting programs should check their compatibility first. Personally, I prefer writing with a different word processor and its supporting programs, then importing text for dressing up by Chiwriter.

Despite limitations, Chiwriter is impressive, especially with a price that's little more than pocket change compared to other programs capable of handling scientific and technical needs.

Ernest E. Mau, a full-time free-lance writer and Online Today *reviews editor, is based in Aurora, Colo. He is the author of several books and nearly 200 articles on microcomputer products and applications.*

GO EBB or circle 20 on the Reader Service Form.

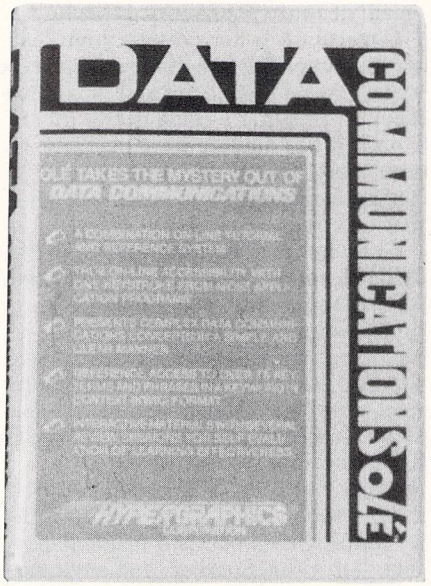
Olé

An Online Encyclopedia For Data Communications

HyperGraphics Corp.
P.O. Box 50779
Denton, TX 76206-0779
817/565-0004 or 800/438-6537

Computers: IBM PC, PC-XT, PC-AT and "true" or operationally compatible computers.
Operating Systems: PC-DOS or MS-DOS version 2.0 or higher.
Media: Requires one double-sided diskette drive; preferred configurations have either two double-sided diskette drives or one double-sided diskette drive and a rigid or hard disk.
Copy Protection: None; copy protection previously used on Olé products has been eliminated.
Required Peripherals: IBM Color Graphics Adapter or equivalent with color or monochrome monitor (color preferred).
Other Requirements: Minimum 256K RAM; memory-resident program consumes 113K RAM in addition to other application software being used.
Optional Items: Additional memory; Microsoft's Mouse or Mouse Systems' PC Mouse.
System used for test: 640K Compaq Deskpro Model 2 with two diskette drives, 20MB IOMEGA Alpha-10 Cartridge Drive Subsystem (Bernoulli Box), Amdek Color 700 RGB monitor; running IBM PC-DOS 2.10.
List Price: $69.95 for Data Communications encyclopedia; other encyclopedia volumes include DOS, BASIC, and UNIX at $69.95 apiece plus a two-part Computer Literacy program at $39.95 for each part.

Reviewed by Ernest E. Mau



In reviewing the first Olé Online Encyclopedia component for MS-DOS in *Online Today*'s print edition (August 1985), I reported on a package that used fascinating graphics and animation to provide instructional and reference materials at the touch of a few keys. I've recently had the opportunity to use the component for data communications.

As before, Olé uses a memory-resident "manager" that accesses encyclopedia volumes. Once it is loaded, pressing "Alt-O" activates the encyclopedia, even from within other application programs and ideally without disturbing the other application. Then the menu-driven program quickly accesses information about 7 general communications topics or 76 specific keywords such as "baud rate," "protocols" and "sync." The main menu also provides help for Olé itself: a "resume" function that returns to the point of interruption in the prior application while leaving the Olé manager resident in memory; a "quit" function that returns but clears the Olé manager from memory; and a "change encyclopedia" function to switch information components.

Having a resident program in the background that provides color graphics, extensive animation and frequent interactive user participation is appealing. Yet, as sophisticated as the presentations are, the information provided is unsophisticated. Sure, Olé gives an overview of what data communications are about and defines many terms clearly and simply, but it contains little real "meat." Like even the best book-style encyclopedias, Olé often takes a simplistic approach to topics. One wouldn't expect a conventional encyclopedia to teach statistical analysis, and one can't expect Olé to explain the details of connecting a modem or actually setting communications parameters.

As examples, explanations of some things like how XMODEM protocol works are informative, but RS-232C interfacing is mentioned only briefly within another topic, with nary a word about signal lines, what they do or when they're required. Nothing is said about hard-wired communications, differences between Data Communications Equipment (DCE) and Data Terminal Equipment (DCE) and other topics. CompuServe's single screen lists a few features, but omits popular ones like special interest groups. The Source is treated similarly. MCI Mail and several others receive no mention. Olé Data Communications might give a newcomer a working vocabulary, but it isn't a particularly useful reference tool for day-to-day needs such as connecting modems, starting communications programs or connecting to bulletin boards and information services.

The earlier DOS component used subdued colors like a dark blue background and seemed to have snappy animation. The Data Communications component relies on somewhat garish bright yellow lettering on a bright blue background, and animation seems slower and more strained. Even with a high-speed 7.14 MHz computer, I'd get bored waiting for a presentation to complete.

The memory-resident "manager" consumes 113K of memory. Files copied from three distribution diskettes consume 824K of hard-disk space (4K increments) for 627K of actual files. Adding the DOS encyclopedia increases hard-disk space to 1136K to hold 923K of files. Eliminating introductory Olé tutorial files that aren't much use after the first pass saves 104K of hard-disk space by removing 61K of actual files. Still, Olé consumes more disk space and memory than some users may be willing to give up.

Unlike the previous Olé component reviewed, this version is readily copied to diskettes, rigid disks and hard disks, and it successfully ran from my Bernoulli Box. A hard-disk installation program previously incapable of recognizing the Bernoulli Box as a valid destination has been eliminated. The new manager program was able to use information files from the earlier component and could include both DOS and Data Communications files in one subdirectory, easily switching between them.

Some adverse interactions between Olé and other applications have been fixed. I no longer lose color when returning from Olé to WordStar 3.3, and Olé now seems to work fine with WordStar 2000. However, the new Olé manager still wiped out color on returning to Volkswriter Scientific and Star Polish, so some interactions still exist and would be expected of a program like this. Thus, users must be cautious in

picking applications to run while Olé is a resident program.

While I'm not overly enthused about the information content of Olé Data Communications, I do like the presentation approach. Far more exciting is that HyperGraphics also licenses an Olé Tool Kit with which users prepare their own customized online encyclopedias. With that, a company could develop specialized and perhaps far more valuable training programs and similar aids.

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1-2-3 Report Writer

A Utility For Lotus 1-2-3 Or Symphony

Lotus Development Corp.
55 Cambridge Parkway
Cambridge, MA 02142
617/577-8500

Computers: IBM PC, PC-XT, PC-AT, Portable, 3270-PC and compatibles including Compaq and AT&T PC 6300.
Operating Systems: PC-DOS or MS-DOS, versions 2.0 through 3.1.
Media: Two disk drives or one drive and hard disk required.
Copy Protection: Uncopyable; backup program disk available for $15.
Required Peripherals: Printer.
Other Requirements: Minimum 256K RAM.
Optional Items: Worksheet files from 1-2-3 Release 1A or 2 or from Symphony 1.0 or 1.1.
System used for test: 484K IBM PC, two double-sided, double-density disk drives, Okidata Microline 84 printer; running PC-DOS 2.1 and Lotus 1-2-3.
List Price: $150

Reviewed by William J. Lynott

One limitation of the database function in Lotus 1-2-3 is its lack of a true report generator. While the print function in the basic program is flexible, it's still just that — a print function. The 1-2-3 Report Writer program adds a full-featured report generator.

The 1-2-3 Report Writer is a stand-alone utility authored by Concentric Data Systems and marketed by Lotus under its own label. The easiest way to understand this program is to think of it as a powerful report generator for 1-2-3 database worksheets. It allows manipulating data in 1-2-3 database files to produce customized reports in almost any format, including mailing labels. You may use any or all fields, arrange them in any position or order, and even generate subtotals for numeric fields.

The package includes the program disk and an installation and tutorial diskette. The tutorial provides an impressive demonstration of selecting only fields you want to include, moving fields around at will with arrow keys, inserting headers or footers and sorting reports on up to four levels. Together, these capabilities permit almost complete freedom to design and print a report exactly as you want it to appear.

The user's manual is professional both in appearance and function. Step-by-step instructions for the sample worksheets on the tutorial disk lead you clearly through various functions required to lay out reports and to experiment with different designs before you print. Menus and prompts in Report Writer are so similar to those in 1-2-3 that 1-2-3 users will adapt to them quickly.

The first time you use Report Writer, you run a simple installation program to identify your printer. With two printers, you may identify both and choose the one you want from a menu at printing time. You also must edit the CONFIG.SYS file on your DOS disk or create a new one following easy directions in the manual.

Since Report Writer is a stand-alone program, you don't have to boot 1-2-3 to use it. Just insert a data disk containing worksheets in drive B and boot Report Writer in drive A. Then use the familiar 1-2-3 menu structure to retrieve a worksheet.

You don't see the actual worksheet on the screen when using Report Writer. Instead, you see a diagram of the worksheet showing all fields in their current order. The length and name of each field is shown, as is its type (numeric, alpha or date). It's this diagram that you use to arrange fields. To change a field, simply point to it with the cursor and choose the desired action from the menu in the control panel. Fields may be repositioned, erased, restored, altered in size or format, or assigned attributes such as bold print. Totals and subtotals may be shown for numeric fields. Adding titles, headers or footers is done easily through the menu structure. Of course, none of the changes in the report affect the original worksheet.

In the spirit of all good database report generators, 1-2-3 Report Writer also lets you choose the exact contents of a report by establishing specific selection criteria using familiar Boolean logic. For example, were you working with a personnel database, you could print a report showing only persons who worked in the advertising department or those who earned over $25,000 last year. Finally, you may use the SORT command to determine the order in which each record appears on the report.

When you're ready to see what the final report will look like, you may display it on the screen using the familiar diagram of your report, showing all four margins and summarizing the format options you have chosen. Then, with the GO command, you may display the actual report as it will print. Once satisfied that all is in order, you're ready to print your hard copy.

1-2-3 Report Writer is a class product that's going to make many Lotus fans happy.

William J. Lynott is president of W.J. Lynott Associates, a management consulting firm in suburban Philadelphia, Pa. His CompuServe User ID number is 70007,420.

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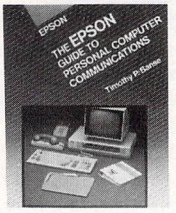

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Augments The PATH Command To Find Overlays

Software Research Technologies
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213/384-5430

Computers: IBM PC, PC-XT and compatibles.
Operating Systems: PC-DOS or MS-DOS version 2.0 or higher.
Media: Requires at least one double-sided diskette drive.
Copy Protection: None.
Required Peripherals: Color or monochrome monitor.
Other Requirements: Typically uses less than 2K of RAM.
Optional Items: None.
System used for test: 640K Compaq Deskpro Model 2 with two diskette drives, 20MB IOMEGA Alpha-10 Cartridge Drive Subsystem (Bernoulli Box), Amdek Color 700 monitor; running IBM PC-DOS 2.10.
List Price: $29.95

Reviewed by Ernest E. Mau

SmartPath (version 1.0C) does one thing: it finds and loads overlay files some programs require while working in a different DOS subdirectory. Typical applications involve software translated from CP/M formats, including WordStar and dBase II, where not finding program overlays causes computer crashes.

The problem is not remedied by the DOS 2.x PATH command, which works only for executable program files. To prevent program failures, users often must copy program overlays to several directories where data files are stored. That's a waste of disk space and is unnecessary with SmartPath.

SmartPath is applied much like the conventional PATH command. A command line or batch file invokes the program with a search path identified something like "spath c:::c:ws" to search for overlays in both the root directory and a "ws" directory on drive c. Regardless of what drive or directory is in use, it finds overlay files in the specified path. It works well.

However, SmartPath is ineffective for files other than program overlays and those not having extensions like "OVR" or "OVL." It doesn't find batch, data, help or other file types also excluded by the standard PATH command.

By contrast, at least one public-domain program can find and access files of all types, including the overlays SmartPath handles plus executable programs, text files, batch files and any others needed. I'm specifically thinking of a program called "Search" available for just the connect time to download from the IBM Professional Forum's Data Library 1 on CompuServe. Once having used that program, SmartPath leaves much to be desired.

Ernest E. Mau, a fulltime free-lance writer and Online Today *reviews editor, is based in Aurora, Colo. He is the author of several books and nearly 300 articles on microcomputer products and applications.*

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Operating Systems: Apple DOS 3.3, CP/M, PC-DOS, MS-DOS, TRS-DOS.
Media: Apple version requires one single-sided disk drive.
Copy Protection: Uncopyable; backup disk supplied for $10 to registered users.
Required Peripherals: Display monitor.
Other Requirements: None.
Optional Items: None.
System used for test: 48K Apple II Plus, DOS 3.3, two disk drives, Sanyo 9-inch black-and-white monitor, parallel printer interface, serial interface, Multi-Tech MT212A 1200/300 baud modem, C. Itoh Prowriter dot-matrix printer.
List Price: $119.95

Reviewed by Howard Berenbon

English language students may benefit from this educational program dealing with grammar. The package includes a 135-page manual and software for creating numerous grammar and usage exercises.

Before running the software, users are directed to read the manual. It is a thorough grammar primer with rules and examples of correct usage.

Running the software gave a menu with 28 question types, some specific and others general. After selecting one, say, Punctuation and Spelling, and the number of questions desired, it generated a test. Other categories included General, Usage, Sentences and Coordination, Language Logic, Verbs and Tenses, Word Confusion Only, Nouns and Pronouns, SAT Topics, GMAT Topics, Parallelism, Adjectives and Adverbs, Verb Tense and Conjunction, to mention a few. Error types in the exercises included Diction, Sentence Fragments, Verbals, Voices, Run-On Sentences, Comparison, Language Logic-Negatives and Redundancy.

In operation, sentences were displayed with possible errors underlined. Errors, if any, required identification and correction. If not identified, the software referred to specific sections of the manual for correction.

I found the software valuable for testing and correcting grammatical usage. Interested students would find exercises covering SAT, ACT, NTE and GMAT standardized exams useful.

Yet, I question the necessity of buying this program. Studying the manual would suffice — along with getting written and verbal practice — and it is overpriced for the application. Also, the questions were displayed in all uppercase, although I have lowercase capability. Finally, only the last four pages of the manual covered the software.

Howard Berenbon is the author of the Mostly BASIC: Applications *series of books published by Howard W. Sams & Co. Inc.*

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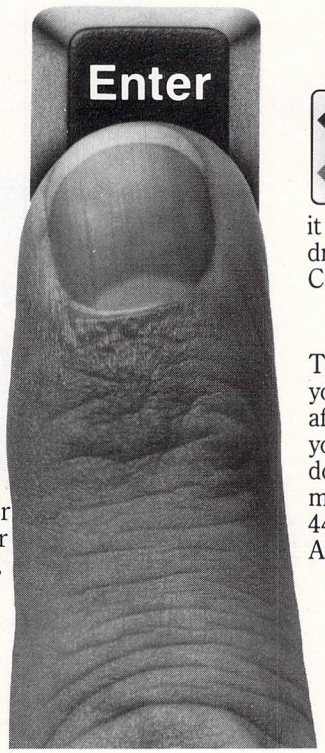

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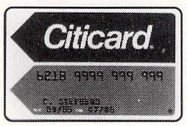

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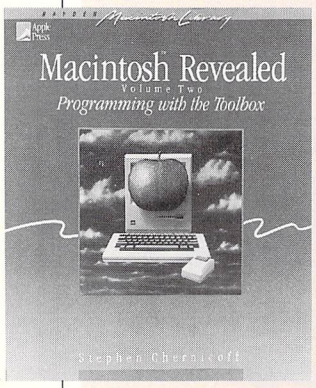
Macintosh Revealed:
Unlocking the Toolbox

By Stephen Chernicoff
Hayden Book Co., 1985
516 pages, $24.95 (softcover)
Reviewed by James Moran



If you are an accomplished programmer with a yearning to hack through a Mac, then this book will show you the way.

If you're a serious Macintosh computer user, then this book, published with the support and encouragement of Apple Computer, should be half of your library. In this first book of a two-volume set, Stephen Chernicoff begins the exploration of the Macintosh toolbox. Formally known as the User Interface Toolbox, this software consists of 64K of specially engineered, machine-language code that is built into the ROM of every Macintosh. As editor-in-chief of Apple's publications department, the author has the tools to accomplish his purpose: teach users the inner workings of the Macintosh.

Macintosh Revealed is not a beginner's book. It is expected that readers will be accomplished programmers with knowledge of at least one high-level programming language. Chernicoff has used Pascal almost exclusively in the book although it is his contention that programmers experienced in other languages will be able to follow the logic of his programming examples.

The book begins with a well-planned introductory section. Much like the prefaces in professional manuals, the introduction lays out the ground rules for technical conventions and terminology. Of course, a general overview of the book's chapters is also included.

Once past the introduction, readers will learn quickly if their skills are up to this book's teaching level. There is no leisurely romp through the Mac's software innards. Information is presented in a no-nonsense manner, and each chapter includes a separate technical reference section. These technical sections are filled with in-depth software specifications, yet they are well-written and clearly illustrated.

Once readers have mastered the information in *Macintosh Revealed* they will be able to effectively manage the Mac's resources whether they be memory, graphics or text. Again, I want to stress that this is not a book for the casual reader or even for an advanced Macintosh user. But if you are an accomplished programmer with a yearning to hack through a Mac, then this book will show you the way.

James Moran is a free-lance writer and frequent contributor to Online Today.

The Women's Computer Literacy Handbook

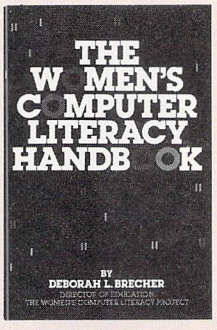
By Deborah L. Brecher
New American Library, 1985
248 pages, $9.95 (softcover)
Reviewed by Lindsy Van Gelder

Why do women need a special book on computers?

Deborah Brecher makes a persuasive argument that most supposedly generic books on technology might as well be called *The Man's Handbook*, since the pronouns are invariably masculine and analogies and examples are usually drawn from traditional male interests, such as team sports.

The author also believes that women approach the topic differently than most men. (She should know — she's been a computer professional for 20 years, taught computing at the university level and is now director of the Women's Computer Literacy Project in San Francisco.) Specifically, men are happy to fly blind and fool around with their machines, seeing what makes what happen; women prefer "to have a holistic sense of how the machine works" and to understand its innards *before* they start playing. Women also like to know what all the jargon means, according to Brecher, and once they have the vocabulary down, everything else is easy.

Brecher has written a book that tells you everything you wanted to know about computers — and then some — in clear language. The computer and its functions are explained in terms of recipes, thermostats, calculators, file cabinets, mailboxes, shorthand pads, magnets and even a shoebox full of lightbulbs turning on and off. Occasionally, the analogies are cutesie (for instance, you're supposed to think of 8- and 16-bit buses as little vehicles), but they're always crystal-clear and often incredibly clever. (She explains printer buffers in terms of a bathtub filling up with water and letting it out again.) Illustrations by Billie Miracle make the information even more accessible.



Brecher has used female pronouns throughout the book, but she makes clear in her introduction that all readers are welcome.

One might guess that in a book this hand-holding would be simplistic, but that isn't the case. Brecher manages to cover a lot of territory, including hardware, word processing, database management, spreadsheets, telecommunications, operating systems, programming and even computer careers. She's great on details, too — from the arguments for and against soft function keys and control keys in word processing software to why 8K RAM chips are really 64 kilobit chips.

Noting that she once was forced to answer ads listed as "Help Wanted — Male," Brecher has used female pronouns throughout the book, but she makes clear in her introduction that all readers are welcome. I hope that men (and women who automatically assume that something aimed at women is second rate) don't pass this one up — since it is easily one of the best beginner books around for anyone.

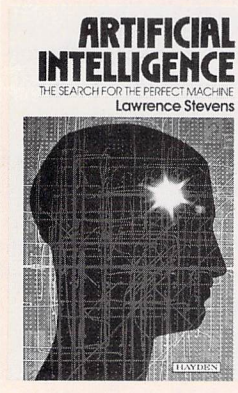
Lindsy Van Gelder writes for Ms., The New York Daily News, Town & Country, Rolling Stone *and other magazines. Her CompuServe User ID number is 73125,470.*

Artificial Intelligence: The Search for the Perfect Machine

By Lawrence Stevens
Hayden Book Co., 1985
177 pages, $14.95 (softcover)
Reviewed by James Moran

We know them as HAL (from the movie "2001: A Space Odyssey") and C3PO (from the "Star Wars" saga). At times they are cute, always amazing, a bit frightening in their powers, but above all, just science fiction. Or are they?

HAL and C3PO are popularized versions of artificial intelligence (AI for short), the rage of scientific research today. Specifically, AI is non-biological intelligent behavior similar in structure to human intelligence. Big words and even bigger ideas that produce some fundamental questions: Is it really possible to reproduce human behavior? Can a computer be programmed to think and act as intelligently as a human being?



We may all have a stake in the future of Artificial Intelligence, and should, perhaps, be examining more closely the research that is occurring now.

Artificial Intelligence tries to provide readers with an insight into the world of AI research. Not only is AI explored and examined, but some basic questions regarding AI are also posed. As an example, how would intelligence be defined? Obviously, some kind of yardstick is necessary to measure results if we are to determine when a computer is "intelligent."

This yardstick is called a standard (or test) and was formulated by computer scientist Alan Turing. The Turing Test can be stated simply: "If a human can question a computer, receive answers (through an intermediary) and not be able to determine if he or she is communicating with a human or with a machine, then the machine can be said to have intelligence."

In this book, author Lawrence Stevens provides an in-depth and non-technical overview. Readers who already have an interest in AI will find areas of exploration of which they may not have been aware. Those who know nothing about AI will quite possibly be amazed by the kind of research taking place. All will be surprised at some of the current applications, even at this early stage of development.

Each successive chapter becomes more and more esoteric with discussion of such topics as the psychological and philosophical foundations of AI and whether true AI is even attainable.

We may all have a stake in the future of AI, and should, perhaps, be examining more closely the research that is occurring now. Nowhere is that made more clear than in a comment near the end of the book: Can computers be made to love, hate, show compassion, or be creative? And, perhaps more important, should they?

James Moran is vice president of Programming Service Corp., a Midwestern consulting and research firm.

Telecomputing on the IBM

By Arlan R. Levitan and Sheldon Leemon
Compute! Publications, 1985
269 pages, $14.95 (softcover)
Reviewed by William J. Lynott

With new books on telecommunications being released on what seems to be a daily basis, it is getting increasingly difficult to tell them apart. After all, how much can be said about searching databases and the joys of "talking" with other computers?

Interestingly, the spate of books already on the market doesn't seem to daunt the publishers who continue to bring new ones out in a steady stream. *Telecomputing on the IBM* is certainly as well done as most, but just about everything in its pages has been said before in earlier efforts. One advantage this book has is its relative freshness. First published in June 1985, its perishable information, such as prices for software and online services, is less likely to be outdated by the time you read it.

Telecomputing on the IBM is aimed primarily at the telecomputing beginner. It is written clearly in non-technical language and moves nicely from some general discussions of computers and their role in communications to the specifics of choosing the appropriate hardware and software for your needs.

Chapter 4 will help you to understand how modems do their job and how to go about selecting one with the features you will need. After an explanation of the basics, this chapter winds up with brief reviews of a variety of popular modems from a dozen different manufacturers.

Chapter 5 is devoted to communications software. Here, as in the rest of the book, technical information is presented on a basic level that will be understood easily by most beginners in telecommunications. Several of the better-known communications programs are reviewed briefly. Because the book is devoted exclusively to the IBM PC and PCjr, the authors have been able to include some helpful specifics on hooking up hardware and getting online for the first time.

Perhaps one of the best features of *Telecomputing on the IBM* are the chapters on the public information services such as CompuServe, The Source and Dow Jones News/Retrieval. The discussions in this section on how to use the CompuServe Information Service are the most informative and helpful that I've seen. Other databases covered are Delphi, PLATO, Homelink, NewsNet and MCI Mail.

Other chapters contain a discussion of public bulletin boards and a brief listing of a number of online reference databases for researchers. Also included is a helpful discussion on file transfers — how to save information downloaded from other computers.

While there are books that delve more deeply into this field, *Telecomputing on the IBM* is a good choice for anyone who has yet to stick a toe in the telecommunications waters.

William J. Lynott is president of W.J. Lynott Associates, a management consulting firm in suburban Philadelphia, Pa. His CompuServe User ID number is 70007,420.

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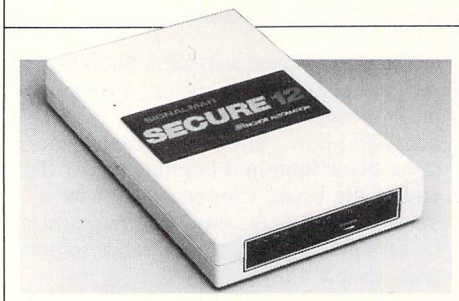

Security Modem

Anchor Automation has introduced the Signalman Secure 12, an intelligent 1200 bps modem with a built-in security call-back system for business, professional and personal computer applications that require secure access from a remote location.

Operating as a secure or standard modem, the Signalman Secure 12 features auto-dial and auto-answer and is Hayes-compatible. It sells for $499.

For information, contact Anchor Automation Inc., 6913 Valjean Ave., Van Nuys, CA 91406; 818/997-7758.

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Modem Tester

Cermetek Microelectronics Inc. has introduced a Universal Modem ATE test station called the TMT-12 for automatically testing dial-up modems, modem subsystems and modem components.

The TMT-12 tests a modem's ability to communicate data through its built-in phone line simulator. In addition, the unit tests the modem's ability to dial and answer calls.

For information, contact Cermetek Microelectronics Inc., 1308 Borregas Ave., P.O. Box 3565, Sunnyvale, CA 94088-3565; 408/734-8150.

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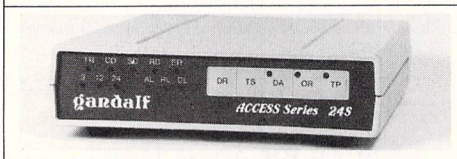

Gaining Access

The Access Series 24S from Gandalf Data Inc. is a 2400 bps intelligent dial modem that features Hayes compatibility, multiple number recall, automatic redial and alternate number dial, autologon, three-wire interface support and compact packaging.

The modem retails for $650.

For information, contact Gandalf Data Inc., 1020 South Noel, Wheeling, IL 60090; 312/541-6060.

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A Terminal For All Purposes

A new high-speed, all-purpose terminal — the VP5801 — has been introduced by RCA Data Communications Products.

Featuring a built-in 300 and 1200 baud modem, the terminal offers easy access to local and national information services and databases such as CompuServe. Features include menu-controlled operation, programmable "personality" to match specific communication requirements for each database, tone or pulse auto-dialing of up to 26 stored phone numbers and automatic logon.

For information, contact RCA/New Products Division, Data Communications Products, P.O. Box 3140, Lancaster, PA 17604-3140; 717/295-6789.

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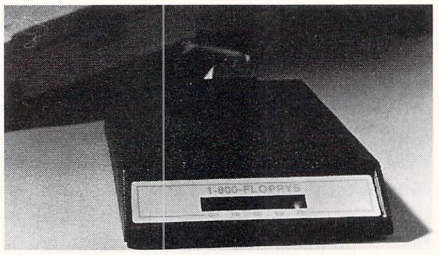

Smart Communications

A new speedy phone modem system called the 1200/300 Baud Smart Communications System has been introduced by 1-800-Floppies.

Compatible with most personal computers, the device sells for $99 with the purchase of 100 floppy disks. The system comes with modem, software and cables.

For information, contact 1-800-Floppies, 22255 Greenfield Rd., Southfield, MI 48075; 800/FLOPPIES.

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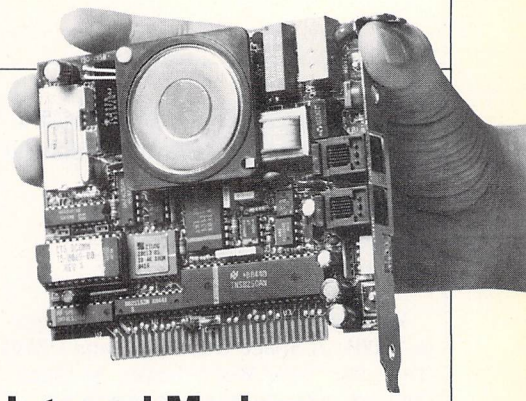

Internal Modem

The Half-Pak No. 12 from CTS Datacomm is a 1200 bps half-card internal modem designed to fit into any slot of the IBM PC, PC-AT, PC-XT, Portable and compatibles.

Selling for $395, the modem operates asynchronously at speeds of 1200, 300 and 110 bps and features auto-dial, auto-answer, an on-board speaker, call progress monitoring, and remote and local diagnostics.

For information, contact CTS Datacomm, 6900 Shady Oak Rd., Eden Prairie, MN 55344; 800/328-6104 or 612/941-9100.

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Mini-portable

Melard Technologies Inc. has introduced Access, a mini-portable computer that can be customized and fits into a corner of a briefcase.

Offering up to 120K of computing capacity, the pocket-sized Access has 64K memory available in plug-in cartridges for program or data storage. The unit also functions as an interactive terminal, connecting with electronic information services such as CompuServe. Prices range from $499 to $995, depending on configurations.

For information, contact Melard Technologies Inc., 5 Westchester Plaza, Elmsford, NY 10523; 914/592-3044.

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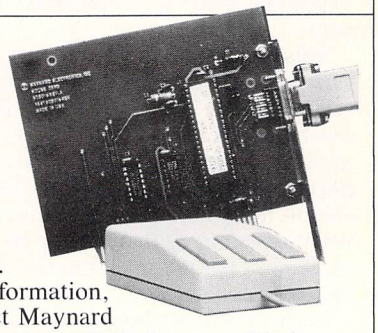
Maynard Mouse

Maynard Electronics has introduced the Maynard Mouse, providing an environment that transforms the Mouse into a mini-keyboard and that can be completely customized.

With its supporting software, CustomKey, the Mouse lets users assign numerous customized commands, enables the Mouse to work with all popular programs and allows for the creation of "macros." The unit is compatible with most popular personal computers, including IBM, NCR, Compaq, ITT and AT&T.



For information, contact Maynard Electronics, 460 E. Semoran Blvd., Casselberry, FL 32707.

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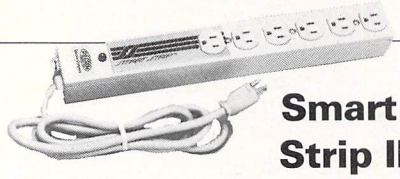

Smart Strip II

Smart Strip II from Pilgrim Electric Co. is a multiple outlet strip that functions as a mini-power distribution unit while providing heavy-duty surge suppression and RFI/EMI filtering.

The product protects computer equipment from transient overvoltages and line noise, as well as controls power to the entire system with a single switch. List prices are $175.50 for four outlets and $186.75 for six-outlet models.

For information, contact Pilgrim Electric Co., 105 Newtown Rd., Plainview, NY 11803; 516/420-8990.

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In The Buff

A new buffer/converter series that offers speed, code and serial/parallel conversion has been introduced by Nu Data Corp.

Called the Model 722, the buffer/converter can be used for programmable answerback, station controler, data selector and password recognition. It comes with 64K of memory with 8 or 16K reserved for ROM.

For information, contact Nu Data Corp., 32 Fairview Ave., Little Silver, NJ 07739; 201/842-5757.

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Report Writer

Concentric Data Systems Inc. has introduced dB Report Writer for preparing presentation-quality reports and business forms from a dBase file in virtually any format, quickly and without programming.

Selling for $125, the software analyzes any dBase II or dBase III file and displays a starting report format tailored to the user's printer page size, up to 250 printer columns by 112 lines. The user then arranges the report visually in columnar, row, page-per-record, mailing label or other formats.

For information, contact Concentric Data Systems Inc., 18 Lyman St., Westboro, MA 01581; 617/366-1122.

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Management Program

Software Studios Inc. has introduced TI-Desk, a new desktop management program for the TI Professional Computer and compatibles.

TI-Desk includes a full-function word processor, calendar/reminder, calculator, automatic phone dialer, repetitive letter writer and a name and address database. It is menu-driven with no commands to memorize.

The program retails for $49 plus $2 shipping from Software Studios Inc., 8516 Sugarbush, Annandale, VA 22003; 703/978-2339.

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Software Clone

Mirror from SoftKlone Distributing Corp. is a data communications software clone of Microstuf's Crosstalk XVI.

Selling for $49.95, Mirror implements the Crosstalk XVI standard in its user-interface and feature/command structure. It also contains a built-in WordStar-like text editor and multiple file transfer protocols and is available for the IBM PC, PC-XT, PC-AT and compatibles.

For information, contact SoftKlone Distributing Corp., 1210 East Park Ave., Tallahassee, FL 32301; 904/878-8564.

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Apple Case

TravelMaster has introduced two TravelMaster Apple IIc cases.

The larger case (TC2C 2375) allows the user to transport the Apple IIc, new flat screen, modem, disk drive, mouse power supplies and related cable accessories. It retails for $89.95

The small case (TC2C 1860) accommodates the Apple IIc, the new flat panel screen, modem, power supplies and related cables and accessories for a retail price of $69.95.

For information, contact TravelMaster, Southern Case Inc., 2315 Laurelbrook St., P.O. Box 28147, Raleigh, NC 27611-8147; 919/821-0877.

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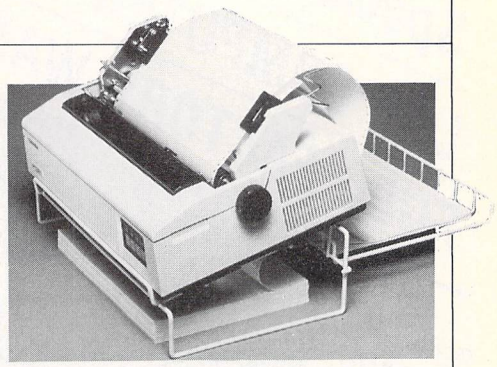

Up On A Pedestal

The Pedestal from Computer Coverup Inc. is a durable, space-saving microcomputer printer stand.

Made of heavy-duty steel wire with non-skid vinyl coating, the Pedestal provides paper storage underneath the printer. Also featured is a receiving tray that catches and refolds the printout.

For information, contact Computer Coverup Inc., 1750 N. Marshfield, Chicago, IL 60622; 800/282-2541 or 312/276-9007.

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No More Glare

A custom designed Anti-Glare Screen for the IBM PC is the newest product to be introduced by Screen Data Corp.

Made of microweave mesh on an extra-heavy plastic frame, the screen enhances character contrast and eliminates glare light. Velcro tabs are used to affix it easily to the terminal. Retail price is $25.95.

For information, contact Screen Data Corp., 80 S. Jefferson Rd., Whippany, NJ 07981; 800/248-1212.

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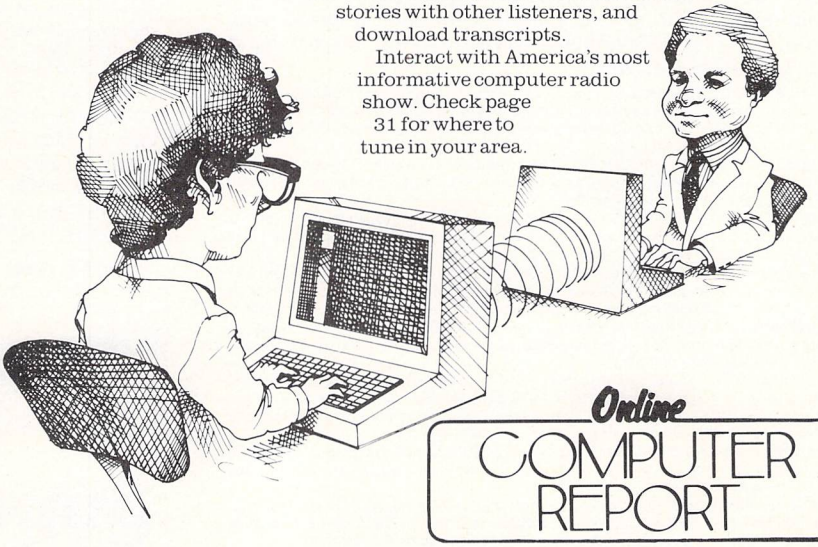

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March issue, not valid after June 1986.

What Makes A Community?

For the all the talk of our electronic *community*, could it be that we're still just an *audience*?

I got to thinking the other day about what it takes to turn a group of people into a society. It seems to me it takes more than just a shared experience. If we're all downtown shopping, we certainly share an event, but later we'll all go our own ways, as surely as if we were rushing to the parking garage after enjoying a concert together.

Of course, societies share more than one experience, but more than that, they share *goals*.

Let's think of it this way: You live where you live because someone — you or an ancestor — made a decision to do so. You stay where you live because you, or a relative, judge the quality of life and the opportunities and decide to stay. In other words, members of a community have vested interests in the future of that society, and that leads to feelings about civic responsibilities. Over time, community attitudes and philosophies emerge as that group of people begins to see how it fits into society as a whole.

Contrast that with an audience that has no real interest in the fate of its members after the event is over.

Online, we've all made decisions to visit each other electronically and to keep coming together, but so far I think we've done that primarily as an audience seeking common experiences. Perhaps to continue our evolution, we must begin to see how we fit into the American society.

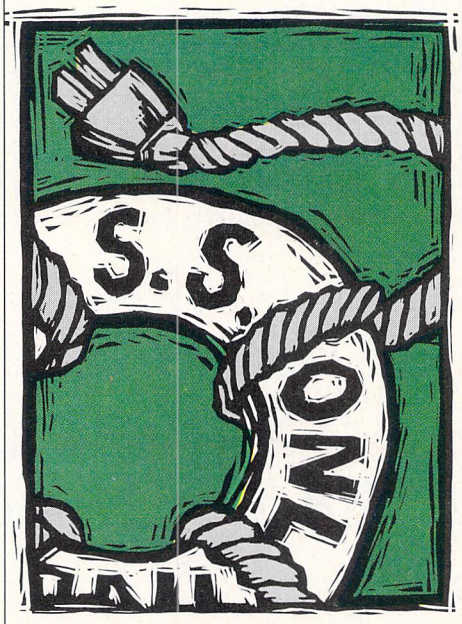
Every community contributes its own unique resources to this country's future. We online also have a unique view of the world. In an electronic environment, we're accustomed to instant communications overcoming geographic distances (and we feel in our hearts that it sometimes helps resolve regional differences). And we can begin expressing ourselves in a variety of ways, from charity on one end of the spectrum to political action on the other.

First, about charity. I suspect that many of the regulars in these online realms are in the middle- and upper-income brackets, with some "disposable income" and the time to enjoy it. In addition, they are interested in exchanging information, including news of the day. In other words, most of us fit a profile of people who regularly support charity.

I think that as our electronic community's personality evolves, support of charities will be an important part of it. After all, electronic communications systems always have been — think of all of the telethons last year, from Live Aid to Farm Aid. In a sense, our online systems provide an opportunity for ongoing telethons.

But there's a big difference between us and the traditional television-radio telethon: Our people can get to know each other online and that can make charity a personal act.

For example, last fall, a large portion of my state, West Virginia, was devastated by a flood. Entire towns were swept away, leaving thousands of people homeless and eventually ensnared in bureaucratic red tape as they began to rebuild.



I don't live in a part of the state that was flood-ravaged, so I was still online when acquaintances around the systems started contacting me and other modemized West Virginians to ask, "Hey, how bad is it really?" When we told them that portion of the Mountain State had never experienced flooding of this magnitude, many of them wrote back to say, "How can I help?"

Well, perhaps they would have sent checks to the West Virginia flood relief agencies anyway. However, I think that at least some of them were swayed by just talking to someone who lived in what to them was a remote corner of the country.

This sort of thing goes on all the time, and I think as we evolve into a community, we'll figure out ways to make this especially personal charity a mainstay. Perhaps a wizard programmer at some system someday will even devise a way for any of us to specify, "For the next two months, I'd like to donate 25 cents per connect hour to the famine victims in Ethiopia" or the earthquake victims in Mexico, or the flood victims in Appalachia.

Of course, charity alone won't make us a community. It's just one of the human experiences to which we can bring our special networks to bear. Another is politics.

In the last year, we've taken our first steps toward political action, primarily in issues that affect us directly — computers. From national information services all the way to local computer bulletin board systems, we've argued among ourselves, formed representative groups and presented position papers to lawmakers about things such as proposals to regular data communications, security and software piracy.

All that's great — but it's just a first step. To evolve from a special interest lobby to a real community, we should think about expanding to a broader range of interests, providing more platforms for debating social issues that don't affect computer users alone.

Our medium is fitted beautifully for the "good side" of politics. We can pull together an instant national interactive forum with the potential of representing every stripe of opinion. If Thomas Jefferson were alive today, there would be a data line running into Monticello, because this is the kind of democracy he hoped would exist in this country.

We're two years away from the next presidential election. Wouldn't it be exciting if we resolved to make 1988 the online world's first national election? With just a portion of this vast medium, our systems could enhance the debate of the candidates and the issues.

It would take some planning. From experience, we all know that our instant communication, when poorly handled, is as likely to result in static as in understanding. There would need to be thought as to how we could use our message systems, databases and real-time conferences to help the most people. Still, I think it would be worth the effort if it could help the process reach corners of the nation overlooked by the traditional media.

And isn't that what's so special about our online world?

Charles Bowen is a contributing editor of Online Today. *His CompuServe User ID number is 70007,411.*

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